2023 Survey of Michigan Nurses

Recent Changes in the Nursing Workforce

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Office of Nursing Safety and Workforce Planning Michigan Department of Health and Human Services

> Prepared by the Michigan Public Health Institute





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Introduction

The Survey of Michigan Nurses has been supported by the Michigan Department of Health and Human Services (MDHHS) annually since 2004 to gather information about the supply of nurses in Michigan. Information gathered from this survey is used to inform state and local decision-making about the recruitment, education, and employment status of the nurse population.

This survey includes questions that focus on 1) license type and educational background; 2) employment status, including current practice setting; 3) length of time practicing and plans to continue practicing as a nurse; and 4) demographic information.

The 2023 Survey of Michigan Nurses report emphasizes changes in the nursing workforce population since 2019 or 2017 when the data were available. Information comparing previous years' data were provided where the survey questions and response options were capable of comparison.

Methodology

SURVEY INSTRUMENT

The MDHHS-Office of Nursing Safety and Workforce Planning (ONP) contracted with the Michigan Public Health Institute (MPHI) to update the annual Survey of Michigan Nurses, collect, and analyze the data, and report findings to nursing stakeholders in a variety of formats. In partnership with the MDHHS-ONP, MPHI held a meeting with nursing stakeholders in October of 2022 to discuss revisions to the 2022 survey instrument that would be incorporated into the 2023 edition. Most notably, there were additional follow-up questions created for various specialty nursing roles and a response option for nurses on permanent disability leave was added to corresponding survey questions. Other revisions included updates to the response options for questions related to gender/gender identity and reasoning for employment outside of Michigan. A copy of the 2023 Survey of Michigan Nurses can be found in Appendix A.

SURVEY ADMINISTRATION

Historically, nurses licensed in Michigan were divided into two cohorts, based upon the year in which they first received their license, and each cohort has renewed their license every two years. Nurses scheduled to renew their license were sent an electronic notification from the Michigan Department of Licensing and Regulatory Affairs (LARA) informing them of their license renewal period along with instructions for beginning the online renewal process. In previous years, the notification included an invitation to complete the Survey of Michigan Nurses which was available through two online options.

The first option was to click on a survey link located at the end of the license renewal online process. The second option was to use the survey's direct URL address listed on the notification. In 2018 and in 2019, the link to the nursing licensure survey was moved to the confirmation of re-licensure sent to nurses following completion of the re-licensure process. In 2019, LARA revised the licensure renewal process to a new electronic system that sends a generic email notification to everyone who needs to renew their license, regardless of the type of license. Because of this updated licensure renewal process, the 2019 survey link was sent to all nursing licensees in a separate email from LARA. Beginning in 2020, MPHI used the email addresses provided by LARA for all licensed nurses recorded in their licensure system to send electronic invites to complete the survey. Nursing associations and organizations were also notified about the survey and reminded nurses to complete the annual survey

by using the emailed survey link or completing the survey through a general link. LARA also sent an email reminder to nurses to complete the survey. In 2023, the general survey link was also distributed via social media.

The survey was administered from January 17 to February 28, 2023. This timeframe was adjusted to accommodate report finalization requirements and to avoid conflict with surveys administered by other entities. Nurses were not required to go through the license renewal process to take the survey.

DEFINITIONS FOR SELECTED NURSING POPULATIONS

Advanced practice nurses (APNs) and advanced practice registered nurses (APRNs) were identified by asking only RNs about their national certification and LARA certification status (see Appendix A for survey questions). Nurses who have completed a national certification exam or completed a portfolio review as an advanced practice nurse, regardless of state certification, are now referred to as APNs within this report. Legislative changes in title protection in Michigan regarding advanced practice registered nurses (APRNs) now require nurses using the title of APRN be state certified as a nurse practitioner, nurse mid-wife, or clinical nurse specialist. While previously considered part of the category APRN, nurse anesthetists who are certified through the Michigan Public Health Code are not among those able to use the protected title of APRN.

The national APN certification denotes passage of an approved graduate educational program and associated national certification exam at the time of survey completion. The state certification from LARA denotes completion of a qualifying educational program and national certification exam as well as both registered nurse licensure and advanced practice nursing certification or nurse anesthetist certification with LARA at the time of survey completion.

DATA ANALYSES

All percentages reported in the results section are presented as weighted estimates that reflect Michigan's overall nurse population. Data weights were calculated and applied to the 2016 through 2023 survey results so comparisons between these eight years can be made in cases where the survey questions were the same. However, comparing 2018 results with either of the two previous years should be done with some caution as the response rates for 2018 were considerably lower than previous years. Survey results from 2016 to 2023 cannot be compared with survey results from years prior to 2016 as those results were not presented as weighted estimates.

In addition to weighted estimates, 95-percent confidence intervals were calculated for selected results. Once data collection concluded, data from the online survey tool was imported into statistical software, Statistical Package for the Social Sciences (SPSS), and run through numerous data cleaning and validation analyses to identify out-of-range or missing values. Results where the accompanying confidence intervals do not overlap can be considered statistically significant at the 95% confidence level. Data are suppressed when the count (numerator) is less than 10 or the sample size (denominator) is less than 20 and an asterisk will be used to denote this in tables where this is applicable. A dash (-) will be used to indicate when the data for that variable was not available, not collected, or does not apply for the year the analysis took place. Both rules will also appear under appropriate tables and figures for future reference.

Data exploring the geographic distribution of nurses in Michigan can be found in Appendix B. Due to small sample sizes, only select data were able to be displayed in tables. In cases where suppression

prevented meaningful interpretations, generalizations were used to discuss trends regarding the geographic distribution of nurses.

Data from the LARA Nurse Licensure Dataset was also analyzed to explore the movement of nurses within and outside of Michigan (Appendix C).

To see complete reports from previous years, visit <u>www.minurse.org</u>.

SURVEY RESPONDENTS & RESPONSE RATES

A total of 22,754 nurses participated in the 2023 Survey of Michigan Nurses and are included in this report, which is lower than the 27,489 nurses who completed the 2022 survey. Even though the number of respondents was lower this year compared to last year, there were no significant differences between age, gender, race, ethnicity, or residence for nurses between the two years. As with previous years, RNs make up around 91 percent of respondents, while LPNs only make up about nine percent of respondents.

Results of the 2023 Survey of Michigan Nurses

DEMOGRAPHICS

The distribution of responding nurses by demographic characteristics is presented in Table 1. Among Registered Nurses (RNs) in Michigan, most were between the ages of 55 and 74 years (47.7 percent), female (83.0 percent), white (84.0 percent), and located in the Detroit Metro area (26.9 percent). Licensed Practical Nurses (LPNs) were most likely to be 55 to 74 years of age (47.9 percent), female (84.2 percent), white (69.6 percent), and located in the Detroit Metro area (25.7 percent).

RN= 20,778 LPN= 1,976 **Demographics** Estimate **Estimate** n n Age <25 years 134 0.6% 1,521 7.3% 103 5.2% 25 to 34 years 35 to 44 years 2,865 13.8% 292 14.8% 17.4% 18.0% 45 to 54 years 3.613 355 55 to 64 years 5,208 25.1% 504 25.5% 65 to 74 years 22.6% 443 22.4% 4,688 75+ years 753 3.6% 47 2.4% Unknown 1,996 9.6% 223 11.3% Gender Female 17,253 83.0% 1,664 84.2% 1,637 7.9% 4.6% Male 91 Gender non-binary/Genderqueer/Transgender a 0.2% 34 33 1.7% Prefer not to respond 330 1.6% Unknown 1,524 7.3% 185 9.4% Race b White 17,444 84.0% 1,375 69.6% Black 921 4.4% 326 16.5% 247 1.2% 44 American Indian 2.2%

Table 1. Demographic Characteristics of Survey Respondents, 2023

Demomenties	RN=	20,778	LPN= 1,976		
Demographics	n	Estimate	n	Estimate	
Race ^b					
Asian/ Pacific Islander	466	2.2%	31	1.6%	
Other	452	2.2%	72	3.6%	
Unknown	1,678	8.1%	199	10.1%	
Hispanic or Latinx ^b					
Yes	388	1.9%	50	2.5%	
No	18,604	89.5%	1,719	87.0%	
Unknown	1,786	8.6%	207	10.5%	
Middle Eastern ^b		-			
Yes	232	1.1%	17	0.9%	
No	18,790	90.4%	1,747	88.4%	
Unknown	1,756	8.5%	212	10.7%	
Region		-			
Upper Peninsula	639	3.1%	129	6.5%	
Northwest LP	834	4.0%	63	3.2%	
Northeast LP	425	2.0%	47	2.4%	
West/West Central	2,746	13.2%	294	14.9%	
East Central	1,005	4.8%	110	5.6%	
East	1,456	7.0%	165	8.4%	
South Central	828	4.0%	57	2.9%	
Southwest	1,223	5.9%	124	6.3%	
Southeast	1,998	9.6%	161	8.1%	
Detroit Metro	5,588	26.9%	507	25.7%	
MI, Unknown Region	661	3.2%	66	3.3%	
Outside MI	2,198	10.6%	110	5.6%	
Unknown	1,177	5.7%	143	7.2%	

^a These options have been combined for the purpose of increasing the likelihood of having enough responses to be included in the analysis. Should the number be high enough, we will revisit separating out options in future surveys.

^b Respondents were instructed to select all races that apply to them.

* Data are suppressed if count is less than 10 or sample population was less than 20.

In Table 2, the demographics are presented for licensed nurses who indicated they have passed a national certification exam for national certification as a nurse practitioner, nurse-midwife, clinical nurse specialist, or nurse anesthetist (reported as "Completed National APN Certification") in each demographic category. The second column shows those who, in addition to having passed a national APN certification exam, have also obtained certification from LARA (reported as "LARA-certified APRNs" or "nurse anesthetists"), allowing them to be recognized and practice as a certified APRN or nurse anesthetist in Michigan.

As shown in Table 2 on the following page, among all RNs, nurses who had passed the APN certification exam were most commonly 35 to 44 years old (15.8 percent); of those licensed nurses, 84.2 percent indicated they also had an APRN or nurse anesthetist certification from LARA (data not shown). Among all National APN certified RNs, 15.2 percent were male, and 11.0 percent were female. Middle Eastern (16.6 percent), some other race (13.9 percent), and Black (13.6 percent) were the most common races and ethnicities for licensed nurses that passed a national APN certification exam. The most common region of residence and region of employment among APN certified nurses was the Detroit Metro area (13.8 percent and 14.0 percent, respectively).

Table 2. Demographics of APNs who Completed National APN Certification & LARA-Certified APRNs and Nurse Anesthetists, 2023

Demographics	Completed	l National APN	LARA-Certified APRNs			
	Ν	Estimate	95% CI	Estimate	95% CI	
Total	20,778	11.4%	(11.0%, 11.8%)	89.5%	(88.2%,90.7%)	
Age	-	<u>.</u>	-	-	-	
<25 years	134	0.0%	(0.0%, 2.8%)	0.0%	(0.0%, 0.0%)	
25 to 34 years	1,521	8.5%	(7.2%, 10.0%)	93.8%	(88.0%, 96.9%)	
35 to 44 years	2,865	15.8%	(14.5%, 17.2%)	93.8%	(91.2%, 95.7%)	
45 to 54 years	3,613	12.5%	(11.5%, 13.6%)	92.5%	(89.7%, 94.6%)	
55 to 64 years	5,208	9.6%	(8.8%, 10.4%)	87.3%	(84.3%, 89.8%)	
65+ years	5,441	11.0%	(10.2%, 11.9%)	70.7%	(67.1%, 74.1%)	
Gender ^a	<u> </u>	<u>1</u>		-	<u> </u>	
Female	17,253	11.0%	(10.5%, 11.5%)	89.2%	(87.8%, 90.5%)	
Male	1,637	15.2%	(13.5%, 17.0%)	91.3%	(87.2%, 94.2%)	
Gender non-binary,	1,001	101270		011070		
Genderqueer,	34	9.0%	(3.1%, 23.2%)	100.0%	(43.8%, 100.0%)	
Transgender a		0.070	(0.1.70, 20.270)			
Prefer not to						
respond	330	13.2%	(10.0%, 17.3%)	96.4%	(86.8%, 99.1%)	
Race ^b		1	(1010,0, 1110,0)			
White	17,444	11.2%	(10.7%, 11.7%)	88.8%	(87.4%, 90.1%)	
Black	921	13.6%	(11.5%, 16.0%)	86.4%	(79.3%, 91.3%)	
American Indian	247	12.8%	(9.2%, 17.5%)	87.2%	(73.1%, 94.5%)	
Asian/ Pacific Islander	2,094	12.8%	(11.4%, 14.3%)	87.2%	(76.4%, 93.5%)	
Other Race	452	13.9%	(11.0%, 17.4%)	86.1%	(75.1%, 92.7%)	
Hispanic or Latinx ^b	402	10.070	(11.070, 17.470)	00.170	(70.170, 02.170)	
Yes	388	8.8%	(6.4%, 12.0%)	91.2%	(79.4%, 96.5%)	
Middle Eastern ^b	500	0.070	(0.470, 12.070)	91.270	(73.470, 30.370)	
	222	16.69/	(12,40(-21,00())	02.40/	(60.19/ 01.09/)	
Yes	232	16.6%	(12.4%, 21.9%)	83.4%	(69.1%, 91.9%)	
Region of Residence	000	40.40/		00.00/	(00.00/.04.40/)	
Upper Peninsula	639	10.4%	(8.3%, 13.0%)	89.2%	(80.2%, 94.4%)	
Northwest LP	834	11.0%	(9.1%, 13.3%)	88.2%	(80.9%, 93.0%)	
Northeast LP	425	11.4%	(8.7%, 14.8%)	92.2%	(81.0%, 97.0%)	
West/West Central	2,746	7.8%	(6.9%, 8.9%)	91.5%	(87.2%, 94.4%)	
East Central	1,005	11.3%	(9.5%, 13.4%)	92.2%	(85.9%, 95.8%)	
East	1,456	10.1%	(8.7%, 11.8%)	92.5%	(87.1%, 95.7%)	
South Central	828	11.0%	(9.0%, 13.3%)	90.6%	(83.5%, 94.8%)	
Southwest	1,223	11.6%	(9.9%, 13.5%)	91.1%	(85.6%, 94.6%)	
Southeast	1,998	12.3%	(10.9%, 13.8%)	91.2%	(87.1%, 94.1%)	
Detroit Metro	5,588	13.8%	(12.9%, 14.7%)	92.0%	(89.8%, 93.7%)	
Unknown MI Region	661	8.9%	(7.0%, 11.3%)	91.2%	(81.7%, 96.0%)	
Outside MI	2,198	11.3%	(10.0%, 12.7%)	72.8%	(67.0%, 77.9%)	
Region of Employmen	t					
Upper Peninsula	489	11.5%	(9.0%, 14.6%)	94.9%	(86.4%, 98.2%)	
Northwest LP	559	10.2%	(8.0%, 13.0%)	93.2%	(85.0%, 97.1%)	
Northeast LP	265	13.7%	(10.1%, 18.4%)	94.3%	(81.4%, 98.4%)	

Demographics	Completed	National APN	LARA-Certified APRNs							
	Ν	Estimate	Estimate	95% CI						
Region of Employment										
West/West Central	1,911	8.1%	(7.0%, 9.4%)	93.6%	(88.9%, 96.4%)					
East Central	794	14.3%	(12.0%, 16.9%)	95.0%	(89.3%, 97.7%)					
East	910	13.6%	(11.5%, 16.0%)	96.1%	(91.1%, 98.3%)					
South Central	636	12.0%	(9.7%, 14.8%)	90.8%	(83.3%, 95.1%)					
Southwest	899	12.6%	(10.6%, 14.9%)	96.6%	(91.7%, 98.6%)					
Southeast	1,735	13.6%	(12.1%, 15.3%)	93.7%	(90.0%, 96.1%)					
Detroit Metro	4,029	14.0%	(13.0%, 15.1%)	94.0%	(91.7%, 95.7%)					
Unknown MI Region	255	8.8%	(5.9%, 12.9%)	73.9%	(53.0%, 87.6%)					
Outside MI	1,783	12.2%	(10.8%, 13.8%)	75.0%	(69.0%, 80.2%)					

^a These options have been combined for the purpose of increasing the likelihood of having enough responses to be included in the analysis. Should the number be high enough, we will revisit separating out options in future surveys.

^b Respondents were instructed to select all races that apply to them.

COMPARING SURVEY RESPONDENTS TO LARA LICENSURE DATA

For the next set of analyses, nurses who completed the survey were compared to the total nurse population based on the state's nurse licensure data provided by LARA. Data were compared using license type, age, and place of residence. A set of weighting variables were created to increase the degree to which the survey results are representative of the overall nurse population in Michigan. A summary of the state's nurse licensure data can be found at <u>www.minurse.org</u> under "Licensure Data & Mapping."

Results from these analyses showed differences in the distribution of nurses who completed the survey compared to the overall nurse population (Table 3). When comparing the ages of nurses who participated in the nurse survey compared to those who are in the nurse licensure data, there is an underrepresentation of younger nurses (i.e., nurses under the age of 55 years of age) and an overrepresentation of nurses aged 55 years or older. However, when looking at the region the nurses reside, there does not to appear to be a considerable amount of under- or over- representation of any region, except there appears to be an underrepresentation of LPNs residing in Detroit Metro in the 2023 survey participants.

Characteristics		R	Ns			LPNs			
	Nurse		Sur	Survey		rse	Survey		
	Population		Participants		Population		Participants		
	#	%	#	%	#	%	#	%	
Total	173,419	-	20,778	-	20,324	-	1,976	-	
Age									
<25 years	3,802	2.2%	134	0.6%	318	1.6%	*	*	
25 to 34 years	36,307	20.9%	1,521	7.3%	3,355	16.5%	103	5.2%	
35 to 44 years	40,911	23.6%	2,865	13.8%	4,890	24.1%	292	14.8%	
45 to 54 years	36,285	20.9%	3,613	17.4%	4,628	22.8%	355	18.0%	

Table 3. Comparison of Survey Respondents to All Nurses Licensed in Michigan, 2023

		RNs LPNs				Ns			
Characteristics	-	Nurse Population		Survey Participants		Nurse Population		Survey Participants	
	#	%	#	%	#	%	#	%	
Age									
55 to 64 years	33,082	19.1%	5,208	25.1%	4,121	20.3%	504	25.5%	
65 to 74 years	20,007	11.5%	4,688	22.6%	2,619	12.9%	443	22.4%	
75+ years	2,986	1.7%	753	3.6%	385	1.9%	47	2.4%	
Unknown	39	0.0%	1,996	9.6%	*	*	223	11.3%	
Region									
Eastern/Central/ Western UP	4,225	2.4%	639	3.1%	1,139	5.6%	129	6.5%	
Northwest LP	5,073	2.9%	834	4.0%	456	2.2%	63	3.2%	
Northeast LP	2,680	1.5%	425	2.0%	523	2.6%	47	2.4%	
West/West Central	21,293	12.3%	2,746	13.2%	2,798	13.8%	294	14.9%	
East Central	8,096	4.7%	1,005	4.8%	1,125	5.5%	110	5.6%	
East	12,371	7.1%	1,456	7.0%	1,774	8.7%	165	8.4%	
South Central	5,619	3.2%	828	4.0%	524	2.6%	57	2.9%	
Southwest	9,756	5.6%	1,223	5.9%	1,245	6.1%	124	6.3%	
Southeast	17,167	9.9%	1,998	9.6%	1,862	9.2%	161	8.1%	
Detroit Metro	53,353	30.8%	5,588	26.9%	7,185	35.4%	507	25.7%	
MI, Unknown Region	111	0.1%	661	3.2%	15	0.1%	66	3.3%	
Non-Michigan	29,361	16.9%	2,198	10.6%	1,587	7.8%	110	5.6%	
Unknown Region	4,314	2.5%	1,177	5.7%	91	0.4%	143	7.2%	
LARA-certified APRN	(Advanced	l Practitio	ner Regis	tered Nur	se)				
Nurse Practitioner	13,904	8.0%	1,543	7.4%	-	-	-	-	
Anesthetist	3,099	1.8%	321	1.5%	-	-	-	-	
Midwife	544	0.3%	84	0.4%	-	-	-	-	
Clinical Specialist	310	0.2%	167	0.8%	-	-	-	-	

* Data are suppressed if count is less than 10 or sample population was less than 20.
- Data are not available/data are not applicable.

EDUCATIONAL PATH

RNs were asked to select which level of degree/certificate qualified them for their first nursing license. As shown in Table 4, in 2023, 47.1 percent of RNs started with a bachelor's degree in nursing, which has been increasing significantly almost every year since 2017. In 2023, almost five percent of RNs indicated that they attained a master's degree in nursing to qualify for their initial application for nursing licensure. There is no clear trend regarding RNs who started with a master's degree in nursing since 2017; however, there was a significant increase in these nurses between 2021 and 2023 (3.7 percent vs. 4.6 percent).

	2	2017	2	2019	2	2021	2023	
Education Level	RN =	= 33,104	RN = 15,865		RN = 33,926		RN = 20,75 7	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
LPN diploma/certificate	10.0%	(9.7%, 10.4%)	4.2%	(3.9%, 4.5%)	5.4%	(5.2%, 5.6%)	5.7%	(5.4%, 6.0%)
RN diploma in nursing	13.1%	(12.7%, 13.5%)	8.7%	(8.3%, 9.1%)	8.4%	(8.1%, 8.7%)	7.3%	(7.0%, 7.7%)
Associate degree in nursing	40.3%	(39.7%, 40.8%)	36.1%	(35.4%, 36.9%)	38.0%	(37.5%, 38.5%)	35.4%	(34.8%, 36.1%)
Bachelor's degree in nursing	34.7%	(34.1%, 35.2%)	44.4%	(43.6%, 45.2%)	44.5%	(44.0%, 45.0%)	47.1%	(46.4%, 47.8%)
Master's degree in nursing	1.8%	(1.6%, 1.9%)	5.8%	(5.4%, 6.2%)	3.7%	(3.5%, 3.9%)	4.6%	(4.3%, 4.9%)

Table 4. Educational Background that Qualified for First Nursing License among RNs: 2017, 2019, 2021, & 2023

RN and LPN nurses were asked their highest level of nursing education (Table 5) and non-nursing education (Table 6). The highest level of nursing education for RNs has consistently been a bachelor's degree in nursing (40.9 percent to 50.9 percent), with the trend increasing significantly from 2017 to 2023. With the percentage of RNs starting with a bachelor's degree to qualify them for their license increasing, there is a significant decrease of RNs starting with an LPN diploma (8.9 percent to 4.3 percent) and associate degrees (38.2 percent to 26.5 percent). However, there has been a significant increase among RNs qualifying for their first license with a master's degree since 2021 (13.1 percent to 15.2 percent) and an increase among RNs qualifying with a DNP since 2017 (0.6 percent to 2.2 percent).

Over the years, a vast majority of LPNs have reported an LPN diploma/certificate being their highest level of nursing education (93.6 percent to 94.2 percent). Due to suppression, additional trends among LPNs were unable to be evaluated.

Over half of RNs and LPNs have consistently responded that non-nursing education was not applicable, although this trend has been slightly decreasing (Table 6). However, there has been a significant decrease in the percentage of RNs who have a non-nursing master's degree

between 2019, 2021, and 2023 (6.8 percent, 5.7 percent, and 5.9 percent, respectively). There were no significant differences in non-nursing degrees among LPNs between 2019 and 2023.

	2	2017		2019	2	2021	2	2023
Education Level	RN =	33,007	RN =	15,865	RN =	33,792	RN =	20,685
	Estimate	95% CI						
LPN diploma/certificate	0.0%	(0.0%, 0.0%)	*	*	*	*	*	*
RN diploma in nursing	8.9%	(8.6%, 9.2%)	6.7%	(6.3%, 7.0%)	5.3%	(5.1%, 5.5%)	4.3%	(4.0%, 4.6%)
Associate degree in nursing	38.2%	(37.7%, 38.7%)	32.0%	(31.3%, 32.8%)	30.9%	(30.4%, 31.4%)	26.5%	(25.9%, 27.1%)
Bachelor's degree in nursing	40.9%	(40.4%, 41.5%)	46.0%	(45.2%, 46.8%)	48.6%	(48.1%, 49.1%)	50.9%	(50.2%, 51.6%)
Master's degree in nursing	10.9%	(10.5%, 11.2%)	13.1%	(12.5%, 13.6%)	13.1%	(12.7%, 13.5%)	15.2%	(14.7%, 15.7%)
Doctorate in Nursing Practice (DNP)	0.6%	(0.5%, 0.7%)	1.4%	(1.2%, 1.6%)	1.4%	(1.3%, 1.5%)	2.2%	(2.0%, 2.4%)
Doctor of Nurse Anesthesia (DNAP)	-	-	0.0%	(0.0%, 0.1%)	0.1%	(0.1%, 0.1%)	0.1%	(0.1%, 0.2%)
Doctor of Philosophy in Nursing (PhD)	0.4%	(0.4%, 0.5%)	0.8%	(0.6%, 0.9%)	0.5%	(0.4%, 0.6%)	0.7%	(0.6%, 0.8%)
Other doctoral degree in nursing	0.1%	(0.1%, 0.1%)	0.1%	(0.0%, 0.1%)	0.1%	(0.1%, 0.1%)	0.1%	(0.1%, 0.2%)
	2017		2	2019 2021		2021	2	2023
Education Level	LPN =	5,743		1,812	LPN =	4,276	LPN =	1,969
	Estimate	95% CI						
LPN diploma/certificate	93.6%	(92.9%, 94.2%)	94.2%	(93.0%, 95.1%)	93.8%	(93.0%, 94.5%)	94.1%	(93.0%, 95.1%)
RN diploma in nursing	0.8%	(0.6%, 1.0%)	*	*	0.5%	(0.3%, 0.8%)	*	*
Associate degree in nursing	4.6%	(4.1%, 5.1%)	5.0%	(4.1%, 6.1%)	4.6%	(4.0%, 5.3%)	4.2%	(3.4%, 5.2%)
Bachelor's degree in nursing	0.9%	(0.7%, 1.1%)	*	*	0.9%	(0.7%, 1.2%)	1.2%	(0.8%, 1.8%)

Table 5. Highest Level of Nursing-Related Education: 2017, 2019, 2021, & 2023

	2017		2	2019	2	2021	2	2023	
Education Level	LPN =	LPN = 5,743		LPN = 1,812		LPN = 4,276		1,969	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	
Master's degree in nursing	*	*	*	*	*	*	*	*	
Doctorate in Nursing Practice (DNP)	*	*	*	*	*	*	0.0%	(0.0%, 0.0%)	
Doctor of Nurse Anesthesia (DNAP)	-	-	*	*	*	*	0.0%	(0.0%, 0.0%)	
Doctor of Philosophy in Nursing (PhD)	*	*	*	*	0.0%	(0.0%, 0.0%)	*	*	
Other doctoral degree in nursing	*	*	*	*	*	*	0.0%	(0.0%, 0.0%)	

* Data are suppressed if count is less than 10 or sample population was less than 20. - Data were not available.

Table 6. Highest Level of Non-Nursing Education: 2017, 2019, 2021, & 2023

	2	2017		2019	2	2021		2023
Education Level	RN =	32,476	RN =	15,381	RN =	33,561	RN =	20,435
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Non-nursing associate degree	13.6%	(13.2%, 13.9%)	13.4%	(12.8%, 13.9%)	14.5%	(14.1%, 14.9%)	14.5%	(14.0%, 15.0%)
Non-nursing bachelor's degree	13.9%	(13.5%, 14.2%)	15.9%	(15.4%, 16.5%)	15.9%	(15.5%, 16.3%)	16.0%	(15.5%, 16.5%)
Non-nursing master's degree	5.2%	(5.0%, 5.5%)	6.8%	(6.5%, 7.2%)	5.7%	(5.5%, 6.0%)	5.9%	(5.6%, 6.2%)
Non-nursing doctoral degree	0.8%	(0.7%, 0.8%)	1.0%	(0.9%, 1.2%)	0.7%	(0.6%, 0.8%)	0.6%	(0.5%, 0.7%)
Not applicable	66.6%	(66.1%, 77.1%)	62.9%	(62.1%, 63.6%)	63.2%	(62.7%, 63.7%)	63.0%	(62.3%, 63.7%)
	2	2017	:	2019	2	2021		2023
Education Level	LPN =	5,669	LPN =	1,795	LPN =	4,207	LPN =	1,912
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Non-nursing associate degree	22.8%	(21.7%, 23.9%)	24.3%	(22.4%, 26.3%)	25.0%	(23.7%, 26.3%)	24.9%	(23.0%, 26.9%)
Non-nursing bachelor's degree	6.6%	(6.0%, 7.3%)	6.4%	(5.4%, 7.6%)	7.0%	(6.3%, 7.8%)	8.1%	(7.0%, 9.4%)

	2017			2019		2021		2023
Education Level	Education Level LPN = 5,669		LPN =	LPN = 1,795		LPN = 4,207		1,912
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Non-nursing master's degree	1.5%	(1.2%, 1.9%)	2.1%	(1.5%, 2.9%)	1.8%	(1.4%, 2.2%)	1.8%	(1.3%, 2.5%)
Non-nursing doctoral degree	0.3%	(0.2%, 0.5%)	*	*	0.4%	(0.2%, 0.6%)	*	*
Not applicable	68.8%	(67.6%, 70.0%)	66.8%	(64.6%, 68.9%)	65.8%	(64.4%, 67.2%)	65.0%	(62.8%, 67.1%)

* Data are suppressed if count is less than 10 or sample population was less than 20.

To better understand the educational path of nurses, analyses were performed to examine the first nursing-related degree in comparison to the highest nursing degree achieved (Table 7). The trend for all nurses whose first nursing degree remained their highest nursing degree significantly decreased across the years with the exception of nurses whose first and highest nursing degree was a master's degree which has significantly increased since 2019 (88.2 percent to 95.7 percent).

There have been some significant differences between nurses' first degree compared to their highest degree since 2019. Nurses whose first degree was an RN diploma/associate degree and had obtained a bachelor's degree significantly increased from 15.0 percent in 2019 to 23.1 percent in 2023. Nurses who had an LPN diploma/certificate as their first degree who had obtained a bachelor's degree has significantly increased between 2021 and 2023 (8.4 percent and 12.3 percent, respectively) and who obtained a master's degree has significantly increased since 2019 (2.9 percent to 5.6 percent). Nurses with an RN diploma/associate degree as their first degree who obtained a master's degree (6.8 percent to 9.0 percent) and a PhD (0.9 percent to 2.0 percent) has also significantly increased since 2019. Nurses with a bachelor's degree as their first degree who obtained a master's degree (9.4 percent to 13.3 percent) and a PhD (2.4 percent to 3.8 percent) has significantly increased since 2019. This suggests that nurses continue to pursue continuing education even after obtaining their first degree and qualifying to be nurses.

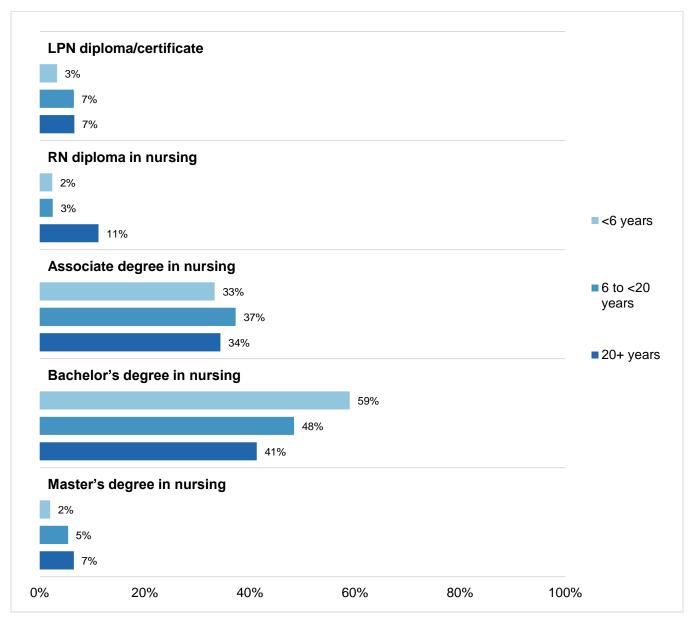
First Nursing Degree to		2019			2021			2023		
Highest Nursing Degree	n	Estimate	95% CI	n	Estimate	95% CI	n	Estimate	95% CI	
LPN Diploma/Certificate as First Nursing Degree										
LPN diploma/certificate	1,818	77.1%	(75.4%, 78.7%)	4,284	72.7%	(71.6%, 73.8%)	1,976	67.2%	(65.6%, 68.8%)	
RN diploma/associate degree	378	12.7%	(11.5%, 14.1%)	1,027	14.4%	(13.6%, 15.3%)	589	14.9%	(13.7%, 16.2%)	
Bachelor's degree in nursing	216	7.3%	(6.3%, 8.4%)	577	8.4%	(7.7%, 9.1%)	456	12.3%	(11.2%, 13.5%)	
Master's or PhD in nursing	96	2.9%	(2.3%, 3.6%)	345	4.5%	(4.0%, 5.0%)	224	5.6%	(4.9%, 6.4%)	
RN Diploma/Associate degree as First Nursing Degree										
RN diploma/associate degree	5,602	77.2%	(75.5%, 78.8%)	11,899	71.8%	(70.7%, 72.9%)	6,765	65.8%	(64.1%, 67.4%)	

Table 7. Nurses' First Nursing Degree Compared to their Highest Nursing Degree^a: 2019, 2021, & 2023

First Nursing Degree to	2019				2021		-	2023		
Highest Nursing Degree	n	Estimate	95% CI	n	Estimate	95% CI	n	Estimate	95% CI	
RN Diploma/Associate degree as First Nursing Degree										
Bachelor's degree in nursing	1,046	15.0%	(13.7%, 16.5%)	3,115	19.7%	(18.7%, 20.7%)	2,081	23.1%	(21.7%, 24.6%)	
Master's degree in nursing	572	6.8%	(5.9%, 7.9%)	1,322	7.3%	(6.7%, 8.0%)	965	9.0%	(8.1%, 10.0%)	
PhD in nursing	87	0.9%	(0.6%, 1.4%)	247	1.2%	(1.0%, 1.5%)	232	2.0%	(1.6%, 2.5%)	
Bachelor's degree in nursin	ng as Fi	rst Nursing l	Degree		-		-	-		
Bachelor's degree in nursing	5,850	88.2%	(86.9%, 89.4%)	11,541	85.1%	(84.2%, 86.0%)	6,711	82.9%	(81.6%, 84.2%)	
Master's degree in nursing	735	9.4%	(8.3%, 10.6%)	1,910	12.4%	(11.6%, 13.2%)	1,246	13.3%	(12.2%, 14.5%)	
PhD in nursing	189	2.4%	(1.9%, 3.1%)	395	2.5%	(2.1%, 2.9%)	339	3.8%	(3.2%, 4.5%)	
Master's Degree as First Nu	Master's Degree as First Nursing Degree									
Master's degree in nursing	924	88.2%	(86.9%, 89.4%)	1,279	95.7%	(95.2%, 96.2%)	946	92.6%	(91.6%, 93.5%)	
PhD in nursing	130	11.8%	(10.6%, 13.1%)	66	4.3%	(3.8%, 4.8%)	81	7.4%	(6.5%, 8.4%)	

^a Associate degrees were included with RNs because many who start with an associate degree now have an RN degree as their highest level of education. Additionally, LPNs who did not answer the survey question about their highest level of education were categorized in the LPN diploma category. For this reason, sample size numbers may vary across tables.

The type of degree/certificate that first qualified respondents to apply for a nursing license was also compared to how long they have been working (Figure 1 on the following page). LPNs were not asked which degree qualified them for their first license, so only RNs are reported in the figure on the next page. As shown in Figure 1, RNs had mostly completed a pre-licensure bachelor's degree in nursing (41.3 percent to 59.0 percent) as their first nursing degree regardless of how long they had been working. The next most common degree was an associate degree in nursing regardless of how long they had been working (33.3 percent).



Few nurses who responded to the survey indicated they were currently enrolled in a nursing education program (RNs = 5.1 percent; LPNs = 9.8 percent). Those who indicated they were enrolled were asked if they were currently enrolled in a program to obtain an Associate Degree in Nursing (ADN), Bachelor of Science in Nursing (BSN), Master of Science in Nursing (MSN), Doctor of Nursing Practice (DNP), Doctor of Nurse Anesthesia (DNAP), or Doctor of Philosophy in Nursing (PhD) degree (Table 8 on the following page). Most RNs were enrolled in a program to obtain an MSN (40.7 percent) or to obtain a BSN (40.6 percent). Most LPNs were enrolled in a program to earn an ADN (81.0 percent) while 22.5 percent were enrolled in a program to obtain a BSN.

Table 8. Current Enrollment in Nursing Educational Programs, 2023ª

Degree	RN=	1,064	LPN= 194		
Degree	Estimate	95% CI	Estimate	95% CI	
Associate Degree in Nursing (ADN)	*	*	81.0%	(74.9%, 85.9%)	
Bachelor of Science in Nursing (BSN)	40.6%	(37.7%, 43.6%)	22.5%	(17.2%, 28.9%)	
Master of Science in Nursing (MSN)	40.7%	(37.8%, 43.7%)	*	*	
Doctor of Nursing Practice (DNP)	16.9%	(14.8%, 19.3%)	*	*	
Doctor of Nurse Anesthesia (DNAP)	3.0%	(2.1%, 4.2%)	0.0%	(0.0%, 1.9%)	
Doctor of Philosophy in Nursing (PhD)	2.3%	(1.6%, 3.4%)	0.0%	(0.0%, 1.9%)	

^a Respondents were instructed to mark all that apply.

* Data are suppressed if count is less than 10 or sample population was less than 20.

RNs who indicated they were enrolled in a program to earn MSN or DNP degrees were also asked if the program was designed to earn a specialty certification (Table 9). Among all nurses, 2.8 percent of RNs were currently enrolled in nurse practitioner educational programs.

Table 9. Current Enrollment in Educational Programs Associated with APN Nursing Specialty Certification Exams among all RNs, 2023

Certification	RN =	RN = 18,312						
Certification	Estimate	95% CI						
Nurse Practitioner	2.8%	(2.6%, 3.0%)						
Nurse Midwife	0.1%	(0.1%, 0.2%)						
Nurse Anesthetist	0.3%	(0.2%, 0.4%)						
Clinical Nurse Specialist	0.3%	(0.2%, 0.4%)						
Other	1.3%	(1.1%, 1.5%)						

Nurses who indicated that they were enrolled in a nursing educational program were also asked if the nursing program was in-person, online, or hybrid (Table 10). Nearly three-quarters of RNs indicated they were enrolled online (71.1 percent), while inperson programs were most common for LPNs (57.7 percent). LPNs were statistically more likely to have an in-person program type (57.7 percent compared to 8.9 percent), or a hybrid program type (30.0 percent compared to 20.0 percent) compared to RNs, while RNs were statistically more likely to have an online program (71.1 percent compared to 12.2 percent).

Due to the required clinical content, LPN-RN or LPN-BSN programs cannot be fully online, which explains why the percentage for online program types is so much smaller for LPNs compared to RNs (12.2 percent vs. 71.1 percent). RN-BSN programs are not often offered fully inperson, which explains why the percentage for in-person programs are so much smaller for RNs than for LPNs (8.9 percent vs. 57.7 percent).

Table	10.	Current	Program	Type, 2023	

Drognom Tymo	RN=	1,050	LPN= 193		
Program Type	Estimate	95% CI	Estimate	95% CI	
In-person	8.9%	(7.3%, 10.8%)	57.7%	(50.6%, 64.5%)	
Online	71.1%	(68.3%, 73.8%)	12.2%	(8.3%, 17.6%)	
Hybrid	20.0%	(17.7%, 22.5%)	30.0%	(24.0%, 36.8%)	

EMPLOYMENT

Nurses were asked about their current employment status to determine the size and characteristics of the workforce (Table 11). Information was collected on positions requiring a nursing license, on temporary leave from a position requiring a nursing license, in a field other than nursing, as well as nurses who were volunteering, unemployed seeking and not seeking work as a nurse, receiving disability, or retired.

In 2023, most RNs and LPNs (63.9 percent and 57.8 percent, respectively) were currently employed full-time in a position that requires a nurse license (Table 11). Approximately one out of 10 nurses were employed in a part-time position (RNs = 10.7 percent; LPNs = 10.6 percent) or had retired from the nursing workforce (RNs = 9.6 percent; LPNs = 10.0 percent).

Overall, all employment statuses for both RNs and LPNs have decreased since 2019, except for actively employed in a field other than nursing (Table 11). RNs and LPNs actively employed in part-time nursing work has significantly decreased since 2017 (RNs = 13.2 percent to 10.7 percent; LPNs = 15.0 percent to 10.6 percent) in addition to volunteer nurses (RNs = 1.4 percent to 0.4 percent; LPNs = 1.5 percent to 0.7 percent).

The percentage of RNs and LPNs actively working in fields other than nursing has significantly increased since 2017 (RNs = 0.5 percent to 3.0 percent; LPNs = 0.5 percent to 5.9 percent). Even though these numbers are still relatively small at this point, there has been almost a three-fold increase in RNs working in non-nursing fields and an almost six-fold increase in LPNs working in nonnursing fields since 2017.

	2	2017		2019	2	2021		2023
Employment	RN=	33,154	RN=	15,896	RN=	33,958	RN=	20,778
	Estimate	95% CI						
Actively employed in nursing or in a position that requires a nurse license full-time	65.1%	(64.6%, 65.6%)	64.1%	(63.4%, 64.9%)	63.5%	(63.0%, 64.0%)	63.9%	(63.2%, 64.6%)
Actively employed in nursing or a position that requires a nurse license part-time	13.2%	(12.8%, 13.6%)	12.1%	(11.6%, 12.6%)	10.8%	(10.5%, 11.1%)	10.7%	(10.3%, 11.1%)
Actively employed in nursing or in a position that requires a nurse license on a per-diem basis	6.6%	(6.4%, 6.9%)	5.0%	(4.7%, 5.3%)	5.0%	(4.8%, 5.2%)	5.6%	(5.3%, 5.9%)

Table 11. Current Employment Status: 2017, 2019, 2021, & 2023

	2	2017		2019	2	2021		2023
Employment	RN=	33,154	RN=	15,896	RN=	33,958	RN=	20,778
	Estimate	95% CI						
On temporary medical leave from a position that requires a nurse license	2.1%	(2.0%, 2.3%)	0.8%	(0.7%, 1.0%)	1.1%	(1.0%, 1.2%)	1.0%	(0.9%, 1.1%)
On temporary non- medical leave from a position that requires a nurse license	1.3%	(1.2%, 1.4%)	0.3%	(0.2%, 0.3%)	0.3%	(0.2%, 0.4%)	0.3%	(0.2%, 0.4%)
Actively employed in a field other than nursing	0.5%	(0.5%, 0.6%)	2.7%	(2.4%, 2.9%)	2.6%	(2.4%, 2.8%)	3.0%	(2.8%, 3.2%)
Volunteer nurse status only	1.4%	(1.3%, 1.6%)	0.9%	(0.8%, 1.1%)	1.2%	(1.1%, 1.3%)	0.4%	(0.3%, 0.5%)
Unemployed, seeking work as a nurse	2.0%	(1.9%, 2.2%)	1.8%	(1.6%, 2.0%)	2.0%	(1.9%, 2.2%)	1.5%	(1.3%, 1.7%)
Unemployed, not seeking work as a nurse	3.3%	(3.1%, 3.5%)	2.7%	(2.5%, 3.0%)	3.2%	(3.0%, 3.4%)	3.2%	(3.0%, 3.4%)
Permanent disability leave	-	-	-	-	-	-	0.8%	(0.7%, 0.9%)
Retired (left the workforce)	10.1%	(9.8%, 10.4%)	9.6%	(9.1%, 10.0%)	10.3%	(10.0%, 10.6%)	9.6%	(9.2%, 10.0%)
	2	2017		2019	2	2021		2023
Employment	LPN=	5,772	LPN=	1,818	LPN=	4,284	LPN=	1,976
	Estimate	95% CI						
Actively employed in nursing or in a position that requires a nurse license full-time	61.3%	(60.1%, 62.6%)	62.6%	(60.4%, 64.8%)	58.5%	(57.0%, 60.0%)	57.8%	(55.6%, 60.0%)
Actively employed in nursing or a position that requires a nurse license part-time	15.0%	(14.1%, 16.0%)	11.9%	(10.5%, 13.5%)	9.7%	(8.8%, 10.6%)	10.6%	(9.3%, 12.0%)
Actively employed in nursing or in a position that requires a nurse	5.9%	(5.3%, 6.5%)	3.5%	(2.7%, 4.4%)	4.7%	(4.1%, 5.4%)	5.2%	(4.3%, 6.3%)

	2	2017		2019	2	2021		2023
Employment	LPN=	5,772	LPN=	1,818	LPN=	4,284	LPN=	1,976
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
license on a per-diem basis								
On temporary medical leave from a position that requires a nurse license	3.4%	(3.0%, 3.9%)	*	*	1.9%	(1.5%, 2.4%)	1.5%	(1.1%, 2.1%)
On temporary non- medical leave from a position that requires a nurse license	2.6%	(2.3%, 3.1%)	*	*	0.7%	(0.5%, 1.0%)	0.9%	(0.6%, 1.4%)
Actively employed in a field other than nursing	0.5%	(0.3%, 0.7%)	4.7%	(3.8%, 5.8%)	4.8%	(4.2%, 5.5%)	5.9%	(4.9%, 7.0%)
Volunteer nurse status only	1.5%	(1.2%, 1.9%)	*	*	1.4%	(1.1%, 1.8%)	0.7%	(0.4%, 1.2%)
Unemployed, seeking work as a nurse	3.5%	(3.0%, 4.0%)	3.7%	(2.9%, 4.6%)	5.0%	(4.4%, 5.7%)	2.6%	(2.0%, 3.4%)
Unemployed, not seeking work as a nurse	4.2%	(3.7%, 4.8%)	3.0%	(2.3%, 3.8%)	3.8%	(3.3%, 4.4%)	3.3%	(2.6%, 4.2%)
Permanent disability leave	-	-	-	-	-	-	1.4%	(1.0%, 2.0%)
Retired (left the workforce)	9.8%	(9.0%, 10.5%)	8.3%	(7.1%, 9.7%)	9.7%	(8.8%, 10.6%)	10.0%	(8.8%, 11.4%)

- Permanent disability leave was not added to the survey until 2023.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Among all licensed nurses in Michigan, 80.4 percent of RNs and 74.0 percent of LPNs were employed as a nurse at the time of the survey (Table 12 on the following page). The percentage of RNs who were employed as a nurse tends to decrease as age increases. Nurses who were 65 years and older were the least likely to be currently employed. There were statistically more male RNs currently employed compared to female RNs in 2023 (84.8 percent vs. 80.0 percent), but statistically more female LPNs compared to male LPNs in 2023 (74.2 percent vs. 70.2 percent). Both males (84.8 percent vs. 70.2 percent) and females (80.0 percent vs. 74.2 percent) were more likely to be RNs compared to LPNs. RNs living in the South Central (82.7 percent) and East Central (82.6 percent) were employed at the highest levels, while LPNs living in the Southeast region of Michigan were employed at the highest levels (81.8 percent). RNs were more likely to reside in the West/West Central (80.7 percent vs. 68.7 percent), East (81.8 percent vs. 69.0 percent) and South Central (82.7 percent vs. 62.9 percent) Michigan compared to LPNs.

Table 12. Percentage of Nurses Who are Employed in Nursing by Demographic Characteristics, 2023

Domographies		RN			LPN	
Demographics	n	Estimate	95% CI	n	Estimate	95% CI
Total	20,778	80.4%	(79.9%, 80.9%)	1,976	74.0%	(72.0%, 75.9%)
Age	-	-		-	-	
<25 years	134	95.5%	(90.5%, 97.9%)	*	*	*
25 to 34 years	1,521	90.5%	(88.9%, 91.9%)	103	85.4%	(77.3%, 90.9%)
35 to 44 years	2,865	89.4%	(88.2%, 90.5%)	292	83.9%	(79.2%, 87.7%)
45 to 54 years	3,613	90.1%	(89.1%, 91.0%)	355	82.3%	(78.0%, 85.9%)
55 to 64 years	5,208	77.6%	(76.4%, 78.7%)	504	69.4%	(65.2%, 73.3%)
65+ years	5,441	34.7%	(33.4%, 36.0%)	490	37.1%	(32.9%, 41.5%)
Gender	-	-		-	-	
Female	17,253	80.0%	(79.4%, 80.6%)	1,664	74.2%	(72.0%, 76.2%)
Male	1,637	84.8%	(83.0%, 86.5%)	91	70.2%	(60.1%, 78.6%)
Gender non-binary/ Genderqueer /Transgender ^a	34	88.1%	(73.2%, 95.2%)	*	*	*
Prefer not to respond	330	77.3%	(72.5%, 81.5%)	33	81.0%	(64.7%, 90.8%)
Race & Ethnicity ^b	<u>-</u>	-		-	-	<u>+</u>
White	17,444	79.9%	(79.3%, 80.5%)	1,375	71.3%	(68.9%, 73.6%)
Black	921	85.4%	(83.0%, 87.5%)	326	82.1%	(77.6%, 85.9%)
American Indian or Alaska Native	247	80.5%	(75.1%, 85.0%)	44	76.4%	(62.1%, 86.5%)
Asian	466	87.8%	(84.5%, 90.5%)	31	83.6%	(67.1%, 92.7%)
Hispanic or Latinx	388	89.9%	(86.5%, 92.5%)	50	78.5%	(65.3%, 87.6%)
Middle Eastern	232	78.2%	(72.5%, 83.0%)	17	71.7%	(48.0%, 87.4%)
Other	452	83.5%	(79.8%, 86.6%)	72	73.2%	(62.0%, 82.1%)
Residence	-	-		-	-	-
Upper Peninsula	639	80.4%	(77.1%, 83.3%)	129	70.8%	(62.4%, 78.0%)
Northwest LP	834	78.6%	(75.7%, 81.2%)	63	73.3%	(61.3%, 82.7%)
Northeast LP	425	77.2%	(73.0%, 80.9%)	47	65.2%	(50.9%, 77.2%)
West/West Central	2,746	80.7%	(79.2%, 82.1%)	294	68.7%	(63.2%, 73.7%)
East Central	1,005	82.6%	(80.1%, 84.8%)	110	78.0%	(69.4%, 84.7%)
East	1,456	81.8%	(79.7%, 83.7%)	165	69.0%	(61.6%, 75.6%)
South Central	828	82.7%	(80.0%, 85.1%)	57	62.9%	(49.9%, 74.3%)
Southwest	1,223	78.4%	(76.0%, 80.6%)	124	71.5%	(63.0%, 78.7%)
Southeast	1,998	79.9%	(78.1%, 81.6%)	161	81.8%	(75.1%, 87.0%)
Detroit Metro	5,588	80.2%	(79.1%, 81.2%)	507	77.1%	(73.2%, 80.5%)

Demographies	RN			LPN		
Demographics	n	Estimate	95% CI	n	Estimate	95% CI
Residence						
Unknown Michigan Residence ^c	661	87.6%	(84.9%, 89.9%)	66	81.8%	(70.8%, 89.3%)
Non-Michigan Residence	2,198	79.9%	(78.2%, 81.5%)	110	77.8%	(69.2%, 84.6%)

^a These options have been combined for the purpose of increasing the likelihood of having enough responses to be included in the analysis. Should the number be high enough, we will revisit separating out options in future surveys.

^b Respondents were instructed to mark all that apply.

° Includes individuals who indicated they live in Michigan but did not provide a zip code.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Table 13 on the following page shows the demographics of nurses who indicated they were currently employed in nursing. The ages of employed RNs and LPNs were fairly evenly distributed between 25 to 64 years old (18.4 percent to 26.2 percent and 19.0 percent to 27.3 percent, respectively). However, RNs were statistically more likely compared to LPNs to be 25 to 34 years of age (23.6 percent vs. 19.1 percent). Most RNs (88.7 percent) and LPNs (92.8 percent) were female. Males were statistically more likely to be RNs compared to LPNs (9.8 percent vs. 5.2 percent), while females were statistically less likely to be RNs compared to LPNs (88.7 percent vs. 92.8 percent). LPNs were more likely to be Black (24.2 percent vs. 5.3 percent), or some other race (8.5 percent vs. 6.5 percent) compared to RNs. RNs were more likely than LPNs to live in South Central Michigan (4.5 percent vs. 2.6 percent), while LPNs were statistically more likely to live in the Upper Peninsula compared to RNs (7.0 percent vs. 3.6 percent). RNs were also about twice as likely to live outside of Michigan compared to LPNs (10.6 percent vs 5.4 percent), and this difference was significant.

Table 13. Demographic Characteristics of	f Employed Nurses in the Nursing Field, 2023

Demographics	RN =	13,260	LPN =	1,167
Demographics	Estimate	95% CI	Estimate	95% CI
Age				
<25 years	2.6%	(2.3%, 2.9%)	*	*
25 to 34 years	23.6%	(22.9%, 24.3%)	19.1%	(16.9%, 21.5%)
35 to 44 years	26.2%	(25.5%, 27.0%)	27.3%	(24.8%, 29.9%)
45 to 54 years	23.5%	(22.8%, 24.2%)	25.3%	(22.9%, 27.9%)
55 to 64 years	18.4%	(17.7%, 19.1%)	19.0%	(16.9%, 21.4%)
65+ years	5.7%	(5.3%, 6.1%)	7.4%	(6.0%, 9.0%)
Gender		<u> </u>		
Female	88.7%	(88.1%, 89.2%)	92.8%	(91.2%, 94.1%)
Male	9.8%	(9.3%, 10.3%)	5.2%	(4.1%, 6.6%)
Gender non-binary/ Genderqueer /Transgender a	0.3%	(0.2%, 0.4%)	*	*
Prefer not to respond	1.2%	(1.0%, 1.4%)	1.7%	(1.1%, 2.6%)
Race ^b				
White	90.6%	(90.1%, 91.1%)	71.2%	(68.5%, 73.7%)
Black	5.3%	(4.9%, 5.7%)	24.2%	(21.8%, 26.7%)
Other ^c	6.5%	(6.1%, 6.9%)	8.5%	(7.0%, 10.2%)
Hispanic or Latinx ^b		-		-
Yes	2.7%	(2.4%, 3.0%)	3.4%	(2.5%, 4.6%)
Middle Eastern ^b				
Yes	1.5%	(1.3%, 1.7%)	1.0%	(0.6%, 1.8%)
Residence		<u> </u>		
Upper Peninsula	3.6%	(3.3%, 3.9%)	7.0%	(5.7%, 8.6%)
Northwest LP	4.1%	(3.8%, 4.5%)	3.1%	(2.2%, 4.3%)
Northeast LP	2.1%	(1.9%, 2.4%)	2.1%	(1.4%, 3.1%)
West/West Central	15.6%	(15.0%, 16.2%)	14.4%	(12.5%, 16.5%)
East Central	5.5%	(5.1%, 5.9%)	6.1%	(4.9%, 7.6%)
East	8.0%	(7.6%, 8.5%)	8.9%	(7.4%, 10.7%)
South Central	4.5%	(4.2%, 4.9%)	2.6%	(1.8%, 3.7%)
Southwest	6.0%	(5.6%, 6.4%)	6.2%	(5.0%, 7.7%)
Southeast	10.4%	(9.9%, 10.9%)	10.5%	(8.9%, 12.4%)
Detroit Metro	28.7%	(27.9%, 29.5%)	32.1%	(29.5%, 34.8%)
Michigan Residence ^d	1.1%	(0.9%, 1.3%)	1.6%	(1.0%, 2.5%)
Non-Michigan Residence	10.6%	(10.1%, 11.1%)	5.4%	(4.2%, 6.8%)

^a These options have been combined for the purpose of increasing the likelihood of having enough responses to be included in the analysis. Should the number be high enough, we will revisit separating out options in future surveys.

^b Respondents were instructed to mark all that apply.

^c Includes individuals who indicated they were American Indian, Asian/PI, or "Other" race.

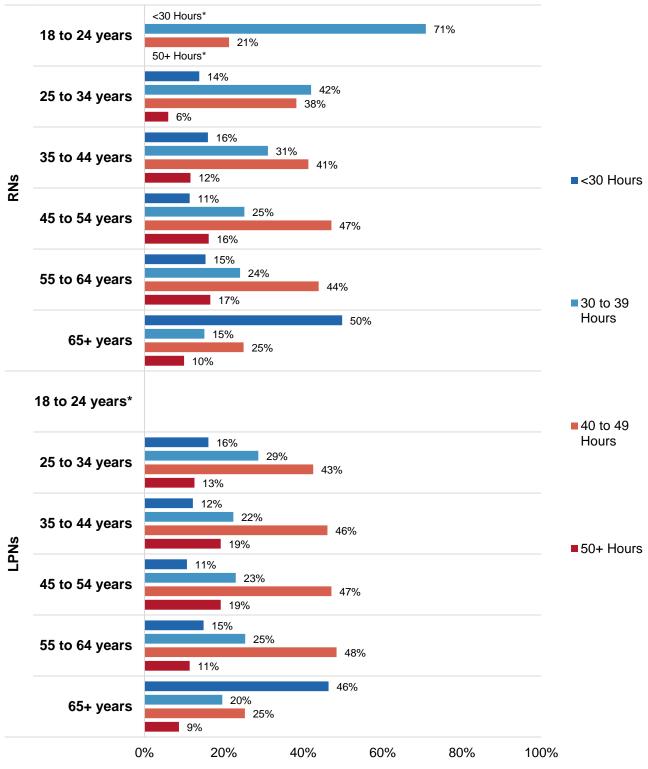
^d Includes individuals who indicated they live in Michigan but did not provide a zip code.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Both RNs and LPNs who stated they were working as a nurse were asked to indicate how many hours per week they worked in nursing or a related area (Figure 2 on the following page). RNs between 35 to 64 years old were most likely to work between 40 to 49 hours per week while LPNs between 25 to 64 years old were most likely to work 40 to 49 hours per week. On the other hand, nurses who were 65 years of age or older were most likely to work fewer than 30 hours per week in nursing or a related area

(RNs = 49.8 percent; LPNs = 46.4 percent). The majority of RNs 18 to 34 years old work 30 to 39 hours per week (42.0 percent to 70.9 percent).

Figure 2. Hours Worked per Week by Age, 2023



* Data are suppressed if count is less than 10 or sample population was less than 20.

Nurses who worked in positions that provide direct care (including staff nurses, school health nurses K-12, and APRNs) and their hours worked per week are reported in Figure 3. Both RNs and LPNs worked 40 to 49 hours per week (41.0 percent and 44.0 percent, respectively) in direct care positions most often.

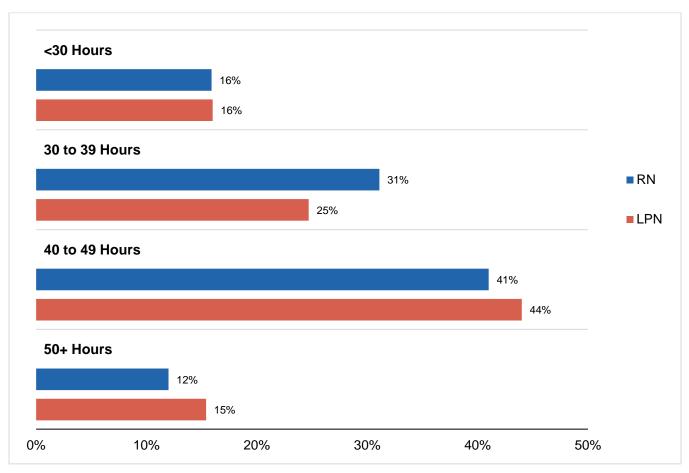


Figure 3. Hours Worked per Week by Direct Care Nurses, 2023

Nurses employed outside of Michigan were asked the reason for being employed outside the state (Table 14). While most respondents indicated they live out of state (RNs = 62.2 percent; LPNs = 65.9 percent), 19.8 percent of RNs and 17.0 percent of responding LPNs indicated they were a travel nurse and 19.4 percent of RNs and 16.9 percent of LPNs indicated it was due to remote work. Respondents also indicated that better pay/wages/benefits were the reason for employment outside of Michigan (18.5 percent for RNs and 24.5 percent for LPNs). There were no significant differences between RNs and LPNs in the reasons why they were employed outside of Michigan.

Passon	RN =	1,726	LPN = 75		
Reason	Estimate	95% CI	Estimate	95% CI	
Living out of state	62.2%	(59.9%, 64.5%)	65.9%	(54.6%, 75.6%)	
Semi-retired	0.9%	(0.6%, 1.5%)	0.0%	(0.0%, 0.0%)	
Taking care of home and family	3.2%	(2.5%, 4.1%)	*	*	
Better pay/wages/benefits	18.5%	(16.7%, 20.4%)	24.5%	(16.2%, 35.3%)	
Better staffing/patient care ratios	8.3%	(7.1%, 9.7%)	*	*	

Reason	RN =	1,726	LPN = 75		
Keason	Estimate	95% CI	Estimate	95% CI	
School	0.9%	(0.6%, 1.5%)	*	*	
Difficulty finding a nursing position	4.1%	(3.3%, 5.1%)	*	*	
Scope of practice regulation is more favorable outside of Michigan	4.1%	(3.3%, 5.1%)	*	*	
Travel nurse	19.8%	(18.0%, 21.7%)	17.0%	(10.2%, 27.1%)	
Remote work such as online teaching, telehealth, or call centers	19.4%	(17.6%, 21.3%)	16.9%	(10.1%, 26.9%)	
Military	1.9%	(1.4%, 2.7%)	*	*	
Other	3.9%	(3.1%, 4.9%)	*	*	

^a Respondents were instructed to mark all that apply.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Nurses actively working in the nursing field were asked to indicate how many different nursing positions they held (Table 15). At the time of the survey, most RNs and LPNs only had one nursing position (85.6 percent and 78.7 percent, respectively). LPNs were statistically more likely to have two positions (16.9 percent vs. 12.4 percent) or to have three or more positions (4.4 percent vs. 2.0 percent) compared to RNs.

Table 15. Number of Currently Employed Nursing Positions, 2023

Number of RN =		14,492	LPN = 1,307		
Positions	Estimate	95% CI	Estimate	95% CI	
1 Position	85.6%	(85.0%, 86.2%)	78.7%	(76.4%, 80.8%)	
2 Position	12.4%	(11.9%, 12.9%)	16.9%	(15.0%, 19.0%)	
3+ Positions	2.0%	(1.8%, 2.2%)	4.4%	(3.4%, 5.7%)	

Nurses were asked which, if any, supports their employers provide such as tuition reimbursement, professional development, and residency programs (Table 16). Most RNs (61.6 percent) indicated they received tuition reimbursement, with the next most common employer support being reimbursement for continuing education (33.6 percent). Conversely, nearly half of the LPNs did not have any of the listed employer supports (48.0 percent), which was significantly greater than for RNs. RNs were statistically more likely to have supports compared to LPNs: 61.6 percent had tuition reimbursement compared to 46.4 percent of LPNs, 13.5 percent had paid time off for continuing education compared to only 3.7 percent of LPNs, 22.7 percent had reimbursement for costs associated with obtaining an advanced degree compared to only 5.1 percent of LPNs, 10.8 percent had student loan repayment benefits compared to 5.8 percent of LPNs, 20.6 percent had nurse residency or transition to practice programs compared to only 3.6 percent of LPNs, and 13.3 percent had mentorships compared to only 4.5 percent of LPNs.

Table 16. Employer Supports, 2023a

Supports	RN =	13,919	LPN = 1,223		
Supports	Estimate	95% CI	Estimate	95% CI	
None of the below	23.7%	(23.0%, 24.4%)	48.0%	(45.2%, 50.8%)	
Tuition reimbursement	61.6%	(60.8%, 62.4%)	46.4%	(43.6%, 49.2%)	
Paid time off for advancing nursing education	4.8%	(4.5%, 5.2%)	4.0%	(3.0%, 5.3%)	

Summenta	RN =	13,919	LPN = 1,223		
Supports	Estimate	95% CI	Estimate	95% CI	
Paid time off for continuing education courses	13.5%	(12.9%, 14.1%)	3.7%	(2.8%, 4.9%)	
Reimbursement for continuing education	33.6%	(32.8%, 34.4%)	16.8%	(14.8%, 19.0%)	
Reimbursement for costs associated with obtaining advanced certification	22.7%	(22.0%, 23.4%)	5.1%	(4.0%, 6.5%)	
Student loan repayment benefits	10.8%	(10.3%, 11.3%)	5.8%	(4.6%, 7.3%)	
Nurse residency/Transitions to practice programs	20.6%	(19.9%, 21.3%)	3.0%	(2.2%, 4.1%)	
Mentorship	13.3%	(12.7%, 13.9%)	4.5%	(3.5%, 5.8%)	
Paid time off for advancing nursing education	4.8%	(4.5%, 5.2%)	4.0%	(3.0%, 5.3%)	

^a Respondents were instructed to mark all that apply.

Nurses who indicated that they have been working for less than three years did not significantly change across the years for either RNs or LPNs (Table 17). However, for both RNs and LPNs, there has been a significant decrease in the percentage of nurses working three to nine years since 2019 (RNs = 30.0 percent to 25.4 percent; LPNs = 34.7 percent to 26.7 percent). Conversely, there has been a significant increase among both RNs and LPNs working 10 to 19 years (RNs = 21.8 percent to 28.8 percent; LPNs = 20.2 percent to 28.1 percent). This suggests that new nurses are leaving after approximately three years of being in the workforce, although if nurses make it past that point, they typically stay for 20 or more years.

For 2023, data can also be broken down to three to less than six years (RNs = 11.1 percent; LPNs = 12.4 percent) and six to less than 10 years (RNs = 14.2 percent; LPNs = 28.1 percent; data not shown).

	2019		20)21	2023		
Years	RN=	RN= 12,224		RN= 24,781		14,000	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	
Less than 3 years	11.1%	(10.5%, 11.7%)	11.9%	(11.5%, 12.3%)	11.1%	(10.6%, 11.6%)	
3 to less than 10 years	30.0%	(29.2%, 30.8%)	29.2%	(28.6%, 29.8%)	25.4%	(24.7%, 26.1%)	
10 to less than 20 years	21.8%	(21.1%, 22.5%)	23.6%	(23.1%, 24.1%)	28.8%	(28.1%, 29.6%)	
20 or more years	37.1%	(36.2%, 37.9%)	35.3%	(34.7%, 35.9%)	34.7%	(33.9%, 35.5%)	
Veene	LPN=	1,317	LPN= 2,895		LPN= 1,236		
Years	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	
Less than 3 years	15.8%	(13.8%, 17.7%)	17.8%	(16.4%, 19.2%)	16.6%	(14.6%, 18.8%)	
3 to less than 10 years	34.7%	(32.1%, 37.2%)	31.4%	(29.7%, 33.1%)	26.7%	(24.3%, 29.2%)	
10 to less than 20 years	20.2%	(18.0%, 22.4%)	22.8%	(21.3%, 24.4%)	28.1%	(25.7%, 30.7%)	
20 or more years	29.4%	(26.9%, 31.8%)	28.0%	(26.4%, 29.7%)	28.5%	(26.1%, 31.1%)	

Table 17. Number of Years Working as a Nurse (RNs & LPNs): 2019, 2021, & 2023

The number of years nationally certified APNs had been working was also measured as a subset of RNs (Table 18 on the following page). In 2023, 38.5 percent of APNs had been working as a nurse for 20 or more years, which has consistently stayed the largest percentage since 2019. The percentages of APNs working less than three years has been significantly decreasing since 2019, as well as the percentage of nurses working three to nine years (24.5 percent in 2019 vs. 18.8 percent in 2023). This suggests that new nurses are not pursuing APN certification at the same rate they previously were and may not be pursuing this certification until 10 or more years of working in the nursing workforce.

For 2023, data can be broken down to three to less than six years (3.3 percent) and six to less than 10 years (15.6 percent; data not shown).

Table 18. Number of Years Working as a Nurse (APNs only): 2019, 2021, & 2023

	2019		20	21	2023		
Years	APN= 1,479		APN=	APN= 2,758		APN= 1,659	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	
Less than 3 years	2.5%	(01.7%, 03.3%)	1.0%	(0.7%, 1.4%)	*	*	
3 to less than 10 years	24.5%	(22.3%, 26.7%)	24.4%	(22.8%, 26.0%)	18.8%	(17.0%, 20.8%)	
10 to less than 20 years	31.4%	(29.0%, 33.7%)	33.6%	(31.8%, 35.3%)	42.3%	(39.9%, 44.7%)	
20 or more years	41.7%	(39.1%, 44.2%)	41.1%	(39.3%, 42.9%)	38.5%	(36.2%, 40.9%)	

* Data are suppressed if count is less than 10 or sample population was less than 20.

The number of years nationally certified APNs have been working was also compared to their age (Figure 4 on the following page). The percentage of APNs working six to less than 10 years are mostly between 25 and 34 years old (55.1 percent) while most APNs 35 to 44 years old have been working for 10 to less than 20 years (75.8 percent). APNs 45 years or older are most likely to have worked as a nurse for 20 or more years (65.8 percent to 96.3 percent).

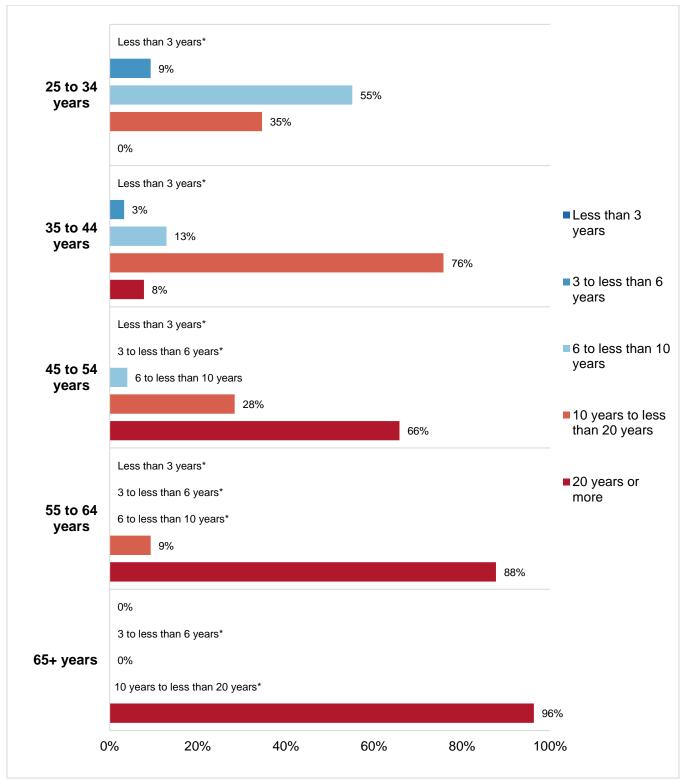


Figure 4. Number of Years Working as a Nurse Compared to Age (APNs only), 2023^a

^a Note about the data: All categories for the age group <25 years were zero percent, thus not included in the above graphic. * Data are suppressed if count is less than 10 or sample population was less than 20.

Practice Setting

Nurses were asked about their current practice setting, position/role, and specialty (Tables 19 to 21). In tables where 2019 data were compared to other years, it is important to note that the 2019 data categories and questions were structured differently compared to 2021

and 2023. Categories were mapped to 2021 and 2023 categories where it was possible. Additionally, 2021 categories were also restructured to better match the 2023 categories. Please review the footnotes attached to these tables for more information.

Across the years, RNs most commonly indicated that they worked in an acute setting, while LPNs most commonly indicated they worked in a long-term setting (51.8 percent to 64.9 percent and 47.9 percent to 52.1 percent, respectively); however, these percentages have significantly decreased since 2019 (Table 19). Ambulatory care, community health, emergent and urgent care, non-clinical, other community-based health care, and other community-based care have all statistically decreased for both RNs and LPNs since 2019.

For RNs, there have been no increases in nurses working on any of the practice settings listed below. For LPNs, the percentages of nurses working in corrections has increased since 2019; however, this increase is not significant (2.3 percent to 3.4 percent).

Overall, for both RNs and LPNs, there has been a significant decrease in the percentage of nurses working across almost all settings. Most notably, RNs and LPNs working in acute care has decreased the most since 2019 (RNs = 64.9 percent to 51.8 percent; LPNs = 36.4 percent to 11.7 percent), followed by community health (RNs = 14.1 percent to 5.0 percent; LPNs = 31.0 percent to 8.7 percent).

	2019 ^b		2021		2023	
Setting	RN = 10,699		RN = 25,173		RN = 14,513	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Acute Care	64.9%	(64.0%, 65.8%)	52.9%	(52.3%, 53.5%)	51.8%	(51.0%, 52.6%)
Ambulatory Care	31.8%	(30.9%, 32.7%)	20.1%	(19.6%, 20.6%)	22.9%	(22.2%, 23.6%)
Community Health	14.1%	(13.5%, 14.8%)	5.5%	(5.2%, 5.8%)	5.0%	(4.7%, 5.4%)
Corrections	0.7%	(0.6%, 0.9%)	0.8%	(0.7%, 0.9%)	0.8%	(0.7%, 1.0%)
Emergent and Urgent Care	12.9%	(12.3%, 13.5%)	9.9%	(9.5%, 10.3%)	11.0%	(10.5%, 11.5%)
Long-term Care ^c	7.1%	(6.6%, 7.6%)	6.5%	(6.2%, 6.8%)	5.4%	(5.0%, 5.8%)
Mobile and Home Care ^d	4.5%	(4.1%, 4.9%)	5.5%	(5.2%, 5.8%)	4.6%	(4.3%, 5.0%)
Non-clinical	14.7%	(14.0%, 15.4%)	9.4%	(9.0%, 9.8%)	9.8%	(9.3%, 10.3%)
Public Health	3.9%	(3.5%, 4.3%)	4.0%	(3.8%, 4.2%)	3.7%	(3.4%, 4.0%)
School of Nursing	-	-	4.0%	(3.8%, 4.2%)	4.3%	(4.0%, 4.6%)
School Health	1.0%	(0.8%, 1.2%)	1.2%	(1.1%, 1.3%)	1.7%	(1.5%, 1.9%)

Table 19. Practice Setting: 2019, 2021, & 2023ª

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	2019 ^b		2021		2023		
Setting	RN = 10,699		RN = 25,173		RN = 14,513		
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	
Other Community-based Health Care settings	9.8%	(9.3%, 10.4%)	3.8%	(3.6%, 4.0%)	3.0%	(2.7%, 3.3%)	
Other Community-based Care	12.0%	(11.4%, 12.6%)	2.5%	(2.3%, 2.7%)	2.6%	(2.4%, 2.9%)	
	2019		2021		2023		
Setting	LPN = 1,181		LPN =	LPN = 2,975		LPN = 1,309	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	
Acute Care	36.4%	(33.7%, 39.2%)	9.7%	(8.7%, 10.8%)	11.7%	(10.1%, 13.6%)	
Ambulatory Care	27.7%	(25.2%, 30.3%)	15.8%	(14.5%, 17.2%)	17.3%	(15.3%, 19.4%)	
Community Health	31.0%	(28.4%, 33.7%)	7.7%	(6.8%, 8.7%)	8.7%	(7.3%, 10.4%)	
Corrections	2.3%	(1.6%, 3.3%)	3.1%	(2.5%, 3.8%)	3.4%	(2.5%, 4.5%)	
Emergent and Urgent Care	13.2%	(11.4%, 15.3%)	2.1%	(1.6%, 2.7%)	2.9%	(2.1%, 4.0%)	
Long-term Care ^c	52.1%	(49.2%, 54.9%)	50.9%	(49.1%, 52.7%)	47.9%	(45.2%, 50.6%)	
Mobile and Home Care ^d	15.3%	(13.4%, 17.5%)	15.1%	(13.9%, 16.4%)	13.9%	(12.1%, 15.9%)	
Non-clinical	16.3%	(14.3%, 18.5%)	5.5%	(4.7%, 6.4%)	6.8%	(5.6%, 8.3%)	
Public Health	4.5%	(3.5%, 5.8%)	3.3%	(2.7%, 4.0%)	3.4%	(2.5%, 4.5%)	
School of Nursing	-	-	1.5%	(1.1%, 2.0%)	0.8%	(0.4%, 1.4%)	
School Health	2.3%	(1.6%, 3.3%)	1.5%	(1.1%, 2.0%)	2.9%	(2.1%, 4.0%)	
Other Community-based Health Care settings	25.7%	(23.3%, 28.3%)	14.4%	(13.2%, 15.7%)	16.5%	(14.6%, 18.6%)	
Other Community-based Care	11.2%	(9.5%, 13.1%)	1.8%	(1.4%, 2.3%)	2.0%	(1.4%, 2.9%)	

^a Respondents were instructed to mark all that apply.

^b Disclaimer: 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were mapped to 2021 and 2023 categories where it was possible.

 $^{\rm c}$ In 2021, this category was named Nursing Home/Extended Care.

^d In 2021, this category was named Mobile Care Unit.

- Category was not available.

Position and Role

All respondents who were employed were asked about their current role and position and could select APRN and nurse anesthetist if appropriate (see Appendix A for the survey tool and definition of APRN).

Across the years, both RNs and LPNs most commonly indicated that they worked as a staff nurse, which has been the case since 2019 (17.1 percent to 63.3 percent and 26.3 percent to 74.9 percent, respectively). This trend has shown a significant increase since 2019 for both RNs and LPNs (Table 20). Among RNs, there was an increase in the percentage of nurses working in several positions and roles. There has been a significant increase in RNs working as travel nurses (1.6 percent to 4.5 percent), executives (1.8 percent to 4.7 percent), APRN or nurse anesthetists (1.4 percent to 10.0 percent), and managerial positions (6.9 percent to 8.6 percent) since 2019. On the other hand, there has been a significant decrease in the percentage of RNs working as patient educators (16.3 percent to 7.2 percent) and working in other health non-nursing related fields (6.4 percent to 0.3 percent). Among LPNs, there is the opposite trend in that the percentage of LPNs working in several positions and roles have significantly decreased since 2019 (Table 19). Most notably, there has been a significant decrease in LPNs working as faculty (7.0 percent to 0.7 percent in 2021), in education, research, and consulting (7.8 percent to 2.7 percent) and as patient educators (25.4 percent to 7.9 percent). For both RNs and LPNs, the percentage of nurses working as patient educators has decreased the most since 2019.

	2019 ^b		2021		2023	
Position	RN = 10,699		RN = 25,092		RN = 14,296	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Staff Nurse	17.1%	(16.4%, 17.8%)	63.3%	(62.7%, 63.9%)	58.2%	(57.4%, 59.0%)
Faculty ^c	3.4%	(3.1%, 3.8%)	3.7%	(3.5%, 3.9%)	3.7%	(3.4%, 4.0%)
Education, Research, & Consulting ^d	9.0%	(8.5%, 9.6%)	7.6%	(7.3%, 7.9%)	8.7%	(8.3%, 9.2%)
School Nurse ^e	1.0%	(0.8%, 1.2%)	1.0%	(0.9%, 1.1%)	1.5%	(1.3%, 1.7%)
Telehealth	-	-	3.6%	(3.4%, 3.8%)	4.0%	(3.7%, 4.3%)
Travel Nurse	1.6%	(1.4%, 1.9%)	-	-	4.5%	(4.2%, 4.8%)
Executives ^f	1.8%	(1.6%, 2.1%)	4.5%	(4.3%, 4.8%)	4.7%	(4.4%, 5.1%)
Patient Educator	16.3%	(15.6%, 17.0%)	5.4%	(5.1%, 5.7%)	7.2%	(6.8%, 7.6%)
APRN and Nurse Anesthetist	1.4%	(1.2%, 1.6%)	8.3%	(8.0%, 8.6%)	10.0%	(9.5%, 10.5%)
Managerial ^g	6.9%	(6.4%, 7.4%)	8.4%	(8.1%, 8.7%)	8.6%	(8.2%, 9.1%)
Military Health Services ^h	-	-	0.4%	(0.3%, 0.5%)	0.5%	(0.4%, 0.6%)
Other Health Services ⁱ	14.1%	(13.5%, 14.8%)	14.8%	(14.4%, 15.2%)	15.4%	(14.8%, 16.0%)
Other Health Non-related	6.4%	(6.0%, 6.9%)	0.2%	(0.2%, 0.3%)	0.3%	(0.2%, 0.4%)
	2019		2021		2023	
Position	LPN = 1,181		LPN = 2,961		LPN = 1,278	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Staff Nurse	26.3%	(23.9%, 28.9%)	75.7%	(74.1%, 77.2%)	74.9%	(72.5%, 77.2%)
Faculty ^c	7.0%	(5.7%, 8.6%)	0.7%	(0.5%, 1.1%)	*	*

Table 20. Position and Role: 2019, 2021, & 2023^a

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	2019		2021		2023	
Position	LPN = 1,181		LPN = 2,961		LPN = 1,278	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Education, Research, & Consulting ^d	7.8%	(6.4%, 9.5%)	2.3%	(1.8%, 2.9%)	2.7%	(2.0%, 3.7%)
School Nurse ^e	2.3%	(1.6%, 3.3%)	1.7%	(1.3%, 2.2%)	2.7%	(2.0%, 3.7%)
Telehealth	-	-	2.6%	(2.1%, 3.2%)	2.6%	(1.9%, 3.6%)
Travel Nurse	3.0%	(2.2%, 4.1%)	-	-	5.0%	(3.9%, 6.3%)
Executives ^f	*	*	2.8%	(2.3%, 3.5%)	3.3%	(2.5%, 4.4%)
Patient Educator	25.4%	(23.0%, 28.0%)	6.0%	(5.2%, 6.9%)	7.9%	(6.6%, 9.5%)
APRN and Nurse Anesthetist	*	*	*	*	0.0%	(0.0%, 0.0%)
Managerial ^g	8.5%	(7.0%, 10.2%)	14.5%	(13.3%, 15.8%)	11.8%	(10.2%, 13.7%)
Military Health Services h	-	-	0.6%	(0.4%, 0.9%)	*	*
Other Health Services i	16.4%	(14.4%, 18.6%)	11.5%	(10.4%, 12.7%)	12.7%	(11.0%, 14.6%)
Other Health Non-related	5.9%	(4.7%, 7.4%)	0.3%	(0.2%, 0.6%)	*	*

^a Respondents were instructed to mark all that apply.

^b Disclaimer: 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were mapped to 2021 and 2023 categories where it was possible.

° In 2021, this category also included Nurse Post Secondary Educators.

^d In 2021, this category also included the following: Nurse Secondary Educator, Professional Nurse Training, Nurse Consultant, & Nurse Researcher.

^e In 2021, this category was named School Health Nurse K-12.

^f In 2021, this category was named Nurse Executive/Administrator.

^g In 2021, this category was named Nurse Manager/Supervisor.

^h In 2021, this category was named Reserve and Active Military.

ⁱ In 2021, this category was named Other Health Related.

* Data are suppressed if count is less than 10 or sample population was less than 20.

-Category was not available.

Specialties

Nurses were also asked to identify the employment specialty that most closely corresponded to their nursing practice position (Table 21 on the following page). The top specialty for RNs in 2023 was adult health (20.7 percent) and for LPNs, the top specialty was geriatric care (41.5 percent). Overall patterns among both RNs and LPNs suggest a decrease in nurses across several specialties since 2019. For both RNs and LPNs, there has been a significant decrease among nurses working in care management, community care, dialysis, hospice, specialty care, and woman and infant health specialties (Table 21). Notably, for both RNs and LPNs, the percentage of nurses working in specialty care was among one of the highest specialties to significantly decrease since 2019 (RNs = 23.9 percent to 14.7 percent; LPNs = 17.7 percent to 5.4 percent).

In addition, for RNs, there has also been a significant decrease in nurses working in geriatric care (11.5 percent to 9.3 percent), phlebotomy, testing, and diagnostics (3.7 percent to 2.2 percent), and other non-clinical specialties (12.3 percent to 2.0 percent) since 2019 (Table 21). Conversely, there have been significant increases among RNs working in anesthesia (1.4 percent to 3.5 percent), child and family care (9.9 percent to 11.8 percent), critical care (14.1 percent to 17.1 percent), occupational health and transitions of care (3.2 percent to 4.3 percent), and surgical services (8.1 percent to 10.9 percent).

Among LPNs, there has been a decrease in nurses working in academia (7.0 percent to 1.7 percent), behavioral health (11.6 percent to 7.7 percent), critical care (7.0 percent to 3.0 percent), occupational health and transitions of care (11.0 percent to 4.9 percent), and rehabilitation (22.9 percent to 18.2 percent; Table 21). The only specialty that has had an increase among LPNs since 2019 is medical-surgical and wound care nurses (8.3 percent to 22.9 percent).

	2019 ^b		2021		2023	
Specialty	RNs= 10,699		RNs= 24,839		RNs= 14,158	
	%	95% CI	%	95% CI	%	95% CI
Academia	3.4%	(3.1%, 3.8%)	3.6%	(3.4%, 3.8%)	3.5%	(3.2%, 3.8%)
Adult Health	5.1%	(4.7%, 5.5%)	20.3%	(19.8%, 20.8%)	20.7%	(20.0%, 21.4%)
Anesthesia	1.4%	(1.2%, 1.6%)	2.6%	(2.4%, 2.8%)	3.5%	(3.2%, 3.8%)
Behavioral Health ^c	6.9%	(6.4%, 7.4%)	5.5%	(5.2%, 5.8%)	6.3%	(5.9%, 6.7%)
Care Management ^d	14.7%	(14.0%, 15.4%)	9.4%	(9.0%, 9.8%)	11.9%	(11.4%, 12.4%)
Child & Family Health ^e	9.9%	(9.3%, 10.5%)	10.3%	(9.9%, 10.7%)	11.8%	(11.3%, 12.3%)
Community Care	4.9%	(4.5%, 5.3%)	4.0%	(3.8%, 4.2%)	4.1%	(3.8%, 4.4%)
Critical Care	14.1%	(13.5%, 14.8%)	16.2%	(15.7%, 16.7%)	17.1%	(16.5%, 17.7%)
Dialysis Nurse	3.0%	(2.7%, 3.3%)	1.9%	(1.7%, 2.1%)	1.6%	(1.4%, 1.8%)
Geriatric Care	11.5%	(10.9%, 12.1%)	9.4%	(9.0%, 9.8%)	9.3%	(8.8%, 9.8%)
Hospice ^f	7.1%	(6.6%, 7.6%)	3.9%	(3.7%, 4.1%)	4.5%	(4.2%, 4.8%)
Medical-Surgical & Wound Care	16.2%	(15.5%, 16.9%)	18.6%	(18.1%, 19.1%)	17.1%	(16.5%, 17.7%)
Occupational Health and Transitions of Care	3.2%	(2.9%, 3.6%)	3.3%	(3.1%, 3.5%)	4.3%	(4.0%, 4.6%)
Other ^g	9.7%	(9.2%, 10.3%)	10.7%	(10.3%, 11.1%)	11.6%	(11.1%, 12.1%)
Other Non-clinical Specialties	12.3%	(11.7%, 12.9%)	2.2%	(2.0%, 2.4%)	2.0%	(1.8%, 2.2%)
Phlebotomy, Testing, & Diagnostics	3.7%	(3.4%, 4.1%)	1.4%	(1.3%, 1.6%)	2.2%	(2.0%, 2.5%)
Rehabilitation	4.3%	(3.9%, 4.7%)	4.3%	(4.1%, 4.6%)	3.6%	(3.3%, 3.9%)
Specialty Care ^h	23.9%	(23.1%, 24.7%)	14.0%	(13.6%, 14.4%)	14.7%	(14.1%, 15.3%)
Surgical Services ⁱ	8.1%	(7.6%, 8.6%)	10.1%	(9.7%, 10.5%)	10.9%	(10.4%, 11.4%)
Women & Infants Health ^j	10.8%	(10.2%, 11.4%)	8.8%	(8.5%, 9.2%)	9.4%	(8.9%, 9.9%)

Table 21. Specialties: 2019, 2021, & 2023ª

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	2	019 ^b	-	2021	2	023
Specialty	LPNs=	1,181	LPNs=	2,911	LPNs=	1,253
	%	95% CI	%	95% CI	%	95% CI
Academia	7.0%	(5.7%, 8.6%)	3.1%	(2.5%, 3.8%)	1.7%	(1.1%, 2.6%)
Adult Health	9.5%	(8.0%, 11.3%)	39.6%	(37.9%, 41.4%)	36.2%	(33.6%, 38.8%)
Anesthesia	*	*	*	*	0.0%	(0.0%, 0.0%)
Behavioral Health ^c	11.6%	(9.9%, 13.6%)	6.7%	(5.9%, 7.7%)	7.7%	(6.4%, 9.3%)
Care Management ^d	16.6%	(14.6%, 18.8%)	4.5%	(3.8%, 5.3%)	5.3%	(4.2%, 6.6%)
Child & Family Healthe	16.6%	(14.6%, 18.8%)	14.0%	(12.8%, 15.3%)	13.8%	(12.0%, 15.8%)
Community Care	11.0%	(9.3%, 12.9%)	6.1%	(5.3%, 7.0%)	5.3%	(4.2%, 6.6%)
Critical Care	7.0%	(5.7%, 8.6%)	3.3%	(2.7%, 4.0%)	3.0%	(2.2%, 4.1%)
Dialysis Nurse	5.8%	(4.6%, 7.3%)	1.3%	(1.0%, 1.8%)	0.9%	(0.5%, 1.6%)
Geriatric Care	46.1%	(43.3%, 49.0%)	39.5%	(37.8%, 41.3%)	41.5%	(38.9%, 44.2%)
Hospice ^f	21.4%	(19.2%, 23.8%)	6.4%	(5.6%, 7.3%)	9.7%	(8.2%, 11.4%)
Medical-Surgical & Wound Care	8.3%	(6.9%, 10.0%)	16.2%	(14.9%, 17.6%)	22.9%	(20.7%, 25.3%)
Occupational Health and Transitions of Care	11.1%	(9.4%, 13.0%)	3.9%	(3.3%, 4.7%)	4.9%	(3.9%, 6.2%)
Other ^g	6.0%	(4.8%, 7.5%)	11.2%	(10.1%, 12.4%)	15.2%	(13.4%, 17.2%)
Other non-clinical specialties	26.9%	(24.4%, 29.5%)	1.4%	(1.0%, 1.9%)	2.1%	(1.5%, 3.0%)
Phlebotomy, Testing, & Diagnostics	3.2%	(2.3%, 4.4%)	3.2%	(2.6%, 3.9%)	4.7%	(3.7%, 6.0%)
Rehabilitation	22.9%	(20.6%, 25.4%)	17.9%	(16.6%, 19.3%)	18.2%	(16.2%, 20.4%)
Specialty Care ^h	17.7%	(15.6%, 20.0%)	3.4%	(2.8%, 4.1%)	5.4%	(4.3%, 6.8%)
Surgical Services ⁱ	2.2%	(1.5%, 3.2%)	1.7%	(1.3%, 2.2%)	1.3%	(0.8%, 2.1%)
Women & Infants Health ^j	6.2%	(5.0%, 7.7%)	1.7%	(1.3%, 2.2%)	2.4%	(1.7%, 3.4%)

^b Disclaimer: 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were mapped to 2021 and 2023 categories where it was possible.

^c In 2021, this category was named Psychiatric/Mental Health/Substance Abuse.

d In 2021, this category included Care Management/Care Coordination & Health Clinical Informatics.

e In 2021, this category included Pediatrics & Family Health.

f In 2021, this category also included Palliative Care.

g In 2021, this category included: Other Medical, Other Clinical Specialties, Flight Nurse, and Other.

h In 2021, this category included: Cardiology, Hematology, Oncology, Nephrology & Thoracic Care.

i In 2021, this category included: Pre-op/Post-op Recovery Room & Operating Room/Scrub Nurse.

j In 2021, this category included: Women's Health, Maternal-Child Health/Obstetrics, & Neonatal.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Change in Employment Setting

Nurses who made a change in their employment setting in the past three years were asked to indicate what type of change they made (Table 22). Since 2019, for both RNs and LPNs, most nurses had not made a change. This has significantly decreased for RNs since 2019 (57.3 percent to 54.4 percent), meaning more RNs are making changes to their employment, but has been increasing for LPNs since 2019 (53.1 percent to 56.8 percent), which means fewer LPNs are making changes to their employment. Interestingly, the trends from 2019 to 2021 and the trends from 2021 to 2023 seem to differ, which may have been caused with the changing workforce environment due to the COVID-19 pandemic. One theory is that nurses moved to the settings where they were needed the most during the pandemic and then went back to what their position was before the pandemic.

Among RNs, in almost all movement categories from 2019 to 2021, there was an increase of nurses who indicated they made some sort of change, except for RNs who moved from a direct care setting to a non-direct care setting (13.7 percent to 12.2 percent) and RNs who moved from non-direct care settings to direct care settings (4.8 percent to 4.1 percent); however, neither of these decreases were considered significant. When looking at categories that increased for RNs, only movement from an acute setting to a sub-acute setting (2.1 percent to 3.7 percent) and some "other type" of change (29.9 percent to 33.3 percent) were significant. However, from 2021 to 2023, there was a decrease in nurses moving to other settings across all categories, and all these decreases were considered significant.

Among LPNs, between 2019 and 2021, similar trends to what was seen among RNs can be found. Across most of the movement categories, there was an increase in the percentage of nurses who indicated they made the change, except for LPNs who indicated they moved from a direct care setting to a non-direct care setting (9.9 percent to 8.1 percent), LPNs who moved from a non-direct care setting to a direct care setting (6.9 percent to 5.6 percent), and LPNs who changed location but did not change their setting (32.8 percent to 32.1 percent) although none of these decreases were considered significant. However, from 2021 to 2023, there was a decrease in nurses moving to other settings across all categories, and these decreases were considered significant except for LPNs who moved from specialty care to primary care (3.9 percent to 2.6 percent) and LPNs who moved from sub-acute care to acute care (3.1 percent).

Change in	2	2019	2	2021	2023				
Employment	RN= 11,605 Estimate 95% CI		RN=	24,474	RN= 14,041				
Setting			Estimate	95% CI	Estimate	95% CI			
Did not make a change	57.3%	(55.9%, 58.7%)	61.5%	(60.9%, 62.1%)	54.4% (53.6%, 55.2%)				
Among those who DID make a change:									

Table 22. Change in Employment Setting: 2019, 2021, & 2023^a

Change in	2	2019	2	2021	2	023
Employment	RN=	11,605	RN=	24,474	RN=	14,041
Setting	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
An inpatient setting to a community- based setting?	-	-	12.9%	(12.2%, 13.6%)	6.1%	(5.7%, 6.5%)
An inpatient setting to an outpatient setting?	18.0%	(17.0%, 19.1%)	-	-	-	-
An outpatient setting to an inpatient setting?	4.9%	(4.4%, 5.6%)	-	-	-	-
A community- based setting to an inpatient setting?	-	-	4.2%	(3.8%, 4.6%)	1.8%	(1.6%, 2.0%)
A primary care setting (e.g., family practice, general medicine) to a specialty care setting?	4.2%	(3.7%, 4.8%)	4.4%	(4.0%, 4.8%)	2.0%	(1.8%, 2.2%)
A specialty care setting to a primary care setting?	2.0%	(1.7%, 2.5%)	2.9%	(2.6%, 3.3%)	1.5%	(1.3%, 1.7%)
A sub-acute care setting to an acute care setting?	3.4%	(2.9%, 4.0%)	3.5%	(3.1%, 3.9%)	1.3%	(1.1%, 1.5%)
An acute care setting to a sub- acute care setting?	2.1%	(1.8%, 2.6%)	3.7%	(3.3%, 4.1%)	1.8%	(1.6%, 2.0%)
A direct patient care setting to a non-direct patient care setting?	13.7%	(12.7%, 14.7%)	12.2%	(11.5%, 12.9%)	6.3%	(5.9%, 6.7%)
A non-direct patient care setting to a direct patient care setting?	4.8%	(4.2%, 5.4%)	4.1%	(3.7%, 4.5%)	2.2%	(2.0%, 2.5%)

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Change in	2	2019	2	2021	2	023
Employment	RN=	11,605	RN=	24,474	RN=	14,041
Setting	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
I changed locations but stayed in the same care setting.	27.7%	(26.5%, 29.0%)	28.3%	(27.4%, 29.2%)	13.4%	(12.8%, 14.0%)
Some other type of change in employment.	29.9%	(28.7%, 31.2%)	33.3%	(32.3%, 34.3%)	15.0%	(14.4%, 15.6%)
Change in	2	2019	2	2021	2	023
Employment	LPN=	1,239	LPN=	2,846	LPN=	1,242
Setting	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Did not make a change	53.1%	(49.0%, 57.2%)	61.2%	(59.4%, 63.0%)	56.8%	(54.0%, 59.5%)
Among those who DID	make a change:	-	-	-	-	-
An inpatient setting to a community- based setting	-	-	10.1%	(8.4%, 12.0%)	3.0%	(2.2%, 4.1%)
An inpatient setting to an outpatient setting?	13.7%	(11.1%, 16.8%)	-	-	-	-
An outpatient setting to an inpatient setting?	6.1%	(4.4%, 8.4%)	-	-	-	-
A community- based setting to an inpatient setting	-	-	4.5%	(3.4%, 5.9%)	2.1%	(1.4%, 3.1%)
A primary care setting (e.g., family practice, general medicine, internal medicine, or general pediatrics) to a specialty	5.8%	(4.2%, 8.1%)	5.9%	(4.6%, 7.5%)	2.5%	(1.8%, 3.5%)
A specialty care setting to a primary care setting	3.9%	(2.6%, 5.8%)	3.9%	(2.9%, 5.2%)	2.6%	(1.9%, 3.6%)

Change in	2	2019	2	2021	2	023
Employment	LPN=	1,239	LPN=	2,846	LPN=	1,242
Setting	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
A sub-acute care setting to an acute care setting	2.5%	(1.5%, 4.2%)	3.1%	(2.2%, 4.3%)	2.1%	(1.4%, 3.1%)
An acute care setting to a sub- acute care setting	2.2%	(1.3%, 3.8%)	2.8%	(2.0%, 4.0%)	*	*
A direct patient care setting to a non-direct patient care setting	9.9%	(7.7%, 12.6%)	8.1%	(6.6%, 9.9%)	4.6%	(3.6%, 5.9%)
A non-direct patient care setting to a direct patient care setting	6.9%	(5.1%, 9.3%)	5.6%	(4.4%, 7.1%)	2.1%	(1.4%, 3.1%)
I changed locations but stayed in the same care setting	32.8%	(29.1%, 36.8%)	32.1%	(29.4%, 34.9%)	15.8%	(13.9%, 17.9%)
I made some other type of employment change	28.8%	(25.2%, 32.6%)	34.8%	(32.0%, 37.7%)	13.5%	(11.7%, 15.5%)

* Data are suppressed if count is less than 10 or sample population was less than 20.

- Category was not available

Reason for Change in Employment

Those who indicated that they changed employment settings were asked the reason for this change (Table 23 on the following page). Most RNs and LPNs were seeking a less stressful position or setting (44.8 percent and 42.5 percent, respectively) or wanted a better schedule (43.4 percent and 38.2 percent, respectively). Other common reasons for RNs and LPNs to change their employment settings were work culture (32.5 percent and 25.2 percent, respectively), workload (31.8 percent and 27.8 percent, respectively), and wages (28.3 percent and 33.8 percent). RNs were statistically more likely compared to LPNs to change their employment due to caring for home or family (13.7 percent vs. 9.0 percent), changing to a preferred nursing position (27.0 percent vs. 21.9 percent), violence or safety issues (10.1 percent vs.

4.2 percent), and work culture (32.5 percent vs. 25.2 percent). LPNs were statistically more likely compared to RNs to change their employment due to wages (33.8 percent vs. 28.3 percent).

		20)23	
Reason	RN =	5,649	LPN =	508
	Estimate	95% CI	Estimate	95% CI
Preparing to retire	5.4%	(4.8%, 6.0%)	5.4%	(3.7%, 7.7%)
Care for home or family	13.7%	(12.8%, 14.6%)	9.0%	(6.8%, 11.8%)
Completed educational program	8.7%	(8.0%, 9.5%)	6.8%	(4.9%, 9.3%)
Changing to preferred nursing position	27.0%	(25.9%, 28.2%)	21.9%	(18.5%, 25.7%)
Seeking a less stressful position/setting	44.8%	(43.5%, 46.1%)	42.5%	(38.3%, 46.8%)
Difficulties with EMR/New technology	0.5%	(0.3%, 0.7%)	*	*
Violence/safety Issues	10.1%	(9.3%, 10.9%)	4.2%	(2.8%, 6.3%)
Relocating/moving to another area	11.7%	(10.9%, 12.6%)	8.4%	(6.3%, 11.1%)
COVID-related	9.6%	(8.9%, 10.4%)	8.4%	(6.3%, 11.1%)
Temporary disability or long-term illness	1.4%	(1.1%, 1.7%)	*	*
Permanent disability leave	*	*	*	*
Wages	28.3%	(27.1%, 29.5%)	33.8%	(29.8%, 38.0%)
Work culture	32.5%	(31.3%, 33.7%)	25.2%	(21.6%, 29.2%)
Workload	31.8%	(30.6%, 33.0%)	27.8%	(24.1%, 31.9%)
Better schedule	43.4%	(42.1%, 44.7%)	38.2%	(34.1%, 42.5%)
Benefits and employer supports	16.6%	(15.7%, 17.6%)	16.5%	(13.5%, 20.0%)
Other	7.4%	(6.7%, 8.1%)	7.0%	(5.1%, 9.6%)

Table 23. Reason for Change in Employment among RNs & LPNs, 2023a-b

^a Respondents were instructed to mark all that apply.

^b Note: This question was not asked in 2019 or 2021, so comparisons cannot be made.

* Data are suppressed if count is less than 10 or sample population was less than 20.

PLANS TO CONTINUE NURSING

Nurses were asked about their plans to continue nursing (Tables 24 to 27). Differences in plans to continue working by current practice setting, position/role, and specialty were also analyzed (Tables 25 to 27). In tables where 2019 data were compared to other years, it is important to note that the 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were

mapped to 2021 and 2023 categories where it was possible. Additionally, 2021 categories were also restructured to better match the 2023 categories. Please review the footnotes attached to these tables for more information.

To assist in projecting the supply of nurses in the future, nurses who were currently working were asked to indicate how many more years they plan to continue working as a nurse (Table 24). In 2023, most RNs (51.8 percent) and LPNs (50.5 percent) estimated that they will continue working as a nurse for more than 10 years. However, this percentage has significantly decreased since 2019 (RNs = 60.2 percent to 51.8 percent; LPNs = 59.0 percent to 50.5 percent). Conversely, there has been a significant increase among both RNs and LPNs planning to work less than two years since 2019 (RNs = 4.6 percent to 7.6 percent; LPNs = 3.9 percent to 6.8 percent). Interestingly, there has also been a significant increase among both RNs and LPNs not knowing how long they plan to continue working (RNs = 5.7 percent to 10.6 percent; LPNs = 9.9 percent to 15.1 percent).

	4	2017	2	2019	4	2021	2	:023
Years	RN=	26,150	RN=	12,213	RN=	24,739	RN=	14,373
	Estimate	95% CI						
Less than 2 years	4.6%	(4.4%, 4.9%)	4.9%	(4.5%, 5.3%)	5.7%	(5.4%, 6.0%)	7.6%	(7.2%, 8.0%)
2 to 5 years	13.4%	(12.9%, 13.8%)	13.0%	(12.4%, 13.6%)	12.7%	(12.2%, 13.1%)	14.0%	(13.4%, 14.6%)
6 to 10 years	16.0%	(15.6%, 16.5%)	14.9%	(14.3%, 15.5%)	15.3%	(14.9%, 15.8%)	15.9%	(15.3%, 16.5%)
More than 10 years	60.2%	(59.7%, 60.8%)	61.2%	(60.4%, 62.1%)	59.5%	(58.9%, 60.1%)	51.8%	(51.0%, 52.6%)
Do not know	5.7%	(5.5%, 6.0%)	5.9%	(5.5%, 6.3%)	6.9%	(6.6%, 7.2%)	10.6%	(10.1%, 11.1%)
	2	2017	2	2019	2	2021	2	:023
Years	LPN=	2017 4,251	2 LPN=	2019 1,314	LPN=	2021 2,878	2 LPN=	.023 1,273
Years		- '	-	-		-	-	_
Years Less than 2 years	LPN=	4,251	LPN=	1,314	LPN=	2,878	LPN=	1,273
	LPN= Estimate	4,251 95% CI	LPN= Estimate	1,314 95% CI	LPN= Estimate	2,878 95% CI	LPN= Estimate	1,273 95% CI
Less than 2 years	LPN= Estimate 3.9%	4,251 95% CI (3.3%, 4.5%)	LPN= Estimate 5.4%	1,314 95% CI (4.2%, 6.6%)	LPN= Estimate 5.1%	2,878 95% CI (4.4%, 6.0%)	LPN= Estimate 6.8%	1,273 95% CI (5.5%, 8.3%)
Less than 2 years 2 to 5 years	LPN= Estimate 3.9% 13.1%	4,251 95% CI (3.3%, 4.5%) (12.1%, 14.1%)	LPN= Estimate 5.4% 14.2%	1,314 95% CI (4.2%, 6.6%) (12.3%, 16.1%)	LPN= Estimate 5.1% 12.0%	2,878 95% CI (4.4%, 6.0%) (10.8%, 13.2%)	LPN= Estimate 6.8% 12.3%	1,273 95% CI (5.5%, 8.3%) (10.6%, 14.2%)

Table 24. Plans to Continue Working as a Nurse: 2017, 2019, 2021, & 2023

To further explore the supply of nurses in the future, nurses who planned to work five years or less were compared by practice setting (Table 25). In 2023, among RNs and LPNs, the highest percentage of nurses planning on leaving the workforce in the next five years was in corrections settings (30.7 percent and 32.2 percent, respectively).

Overall, among both RNs and LPNs, there has been an increase in the percentage of nurses who plan on working five years or less across most practice settings (Table 25). Most notably, for both RNs and LPNs, the largest increase was among nurses working in other community care-based healthcare (RNs = 17.3 percent to 28.7 percent; LPNs = 13.8 percent to 25.0 percent). The second largest increase for RNs was in long-term care settings (15.7 percent to 24.1 percent). The second largest increase for LPNs was in ambulatory care (17.4 percent to 25.7 percent). The only decrease among RNs was among nurses working in school health (24.1 percent to 21.0 percent), but this decrease was not significant.

While the percentages of nurses who planned on working five years or less in acute care and ambulatory care may not be as high as some other areas, the impact of the rates is concerning. The absolute number of nurses in these settings is so large that they need to be highlighted and addressed for the impact they will have on the health care system in the state and the number of new nurses required to replace these members of the workforce (Acute Care: RNs = 1,792; Ambulatory Care: RNs = 1,083). While there are fewer nurses who practiced in school of nursing settings, the educational level of master's or doctoral degree preparation for faculty make them harder to quickly replace.

		2019) ^b		202	21		202	23
Setting		RNs=3	,351		RNs=6	5,834		RNs=5	5,449
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Acute Care	1,102	14.7%	(12.7%, 16.9%)	2,215	15.6%	(14.1%, 17.2%)	1,792	21.0%	(20.0%, 22.1%)
Emergent and Urgent Care	201	14.0%	(9.9%, 19.5%)	351	12.6%	(9.5%, 16.5%)	318	18.7%	(16.6%, 21.0%)
Corrections	21	26.6%	(12.5%, 48.0%)	41	17.3%	(8.7%, 31.5%)	39	30.7%	(22.7%, 40.1%)
Long-term Care ^c	128	15.7%	(10.4%, 23.0%)	296	15.9%	(12.2%, 20.5%)	267	24.1%	(21.2%, 27.3%)
Ambulatory Care	545	14.5%	(11.8%, 17.7%)	1,276	20.7%	(18.6%, 23.0%)	1,089	22.2%	(20.8%, 23.7%)
Mobile and Home Care ^d	112	20.7%	(14.2%, 29.1%)	340	19.5%	(15.6%, 24.0%)	263	25.1%	(22.0%, 28.5%)
Non-clinical	366	21.1%	(17.2%, 25.6%)	761	26.8%	(23.8%, 30.1%)	623	28.3%	(26.1%, 30.6%)
School of Nursing	-	-	-	299	24.0%	(19.5%, 29.2%)	252	25.6%	(22.4%, 29.1%)
Public Health	86	17.7%	(11.1%, 27.1%)	315	26.5%	(21.9%, 31.6%)	160	20.8%	(17.5%, 24.6%)
Community Health	277	15.9%	(12.1%, 20.7%)	370	21.8%	(17.9%, 26.3%)	239	23.2%	(20.1%, 26.6%)
School Health	29	24.1%	(12.2%, 42.1%)	89	25.6%	(17.7%, 35.5%)	71	21.0%	(16.0%, 27.0%)
Other Community-based Healthcare	190	17.3%	(12.6%, 23.3%)	282	23.9%	(19.3%, 29.2%)	196	28.7%	(24.8%, 33.0%)

Table 25. Plans to Work Five Years or Less by Setting: 2019, 2021, & 2023ª

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		2019) ^b		202	21		202	23
Setting		RNs=3	,351		RNs=6	6,834		RNs=	5,449
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Other Community-based Care	294	20.6%	(16.4%, 25.6%)	199	26.9%	(21.2%, 33.5%)	140	25.6%	(21.5%, 30.2%)
Cotting of		LPNs=	421		LPNs:	= 701		LPNs	=407
Setting	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Acute Care	61	15.9%	(8.8%, 27.0%)	59	21.9%	(13.2%, 34.0%)	24	12.8%	(7.8%, 20.2%)
Emergent and Urgent Care	23	15.4%	(5.8%, 34.9%)	11	19.2%	(5.6%, 48.7%)	*	*	*
Corrections	*	*	*	12	13.9%	(3.5%, 41.8%)	12	32.2%	(18.3%, 50.1%)
Long-term Care ^c	70	13.3%	(7.2%, 23.2%)	206	14.9%	(10.7%, 20.4%)	108	18.4%	(15.1%, 22.3%)
Ambulatory Care	53	17.4%	(9.5%, 29.7%)	127	26.0%	(19.2%, 34.3%)	80	25.7%	(20.1%, 32.2%)
Mobile and Home Care ^d	33	21.6%	(10.9%, 38.2%)	82	19.4%	(12.3%, 29.2%)	57	26.3%	(19.9%, 33.8%)
Non-clinical	40	22.6%	(12.4%, 37.6%)	44	26.4%	(15.7%, 40.9%)	23	18.9%	(11.6%, 29.3%)
School of Nursing	-	-	-	*	*	*	*	*	*
Public Health	*	*	*	11	13.3%	(3.1%, 42.5%)	*	*	*
Community Health	49	14.2%	(7.0%, 26.6%)	36	16.2%	(7.6%, 31.4%)	22	14.1%	(8.2%, 23.2%)
School Health	*	*	*	*	*	*	*	*	*
Other Community-based Healthcare	40	13.8%	(6.3%, 27.7%)	80	19.0%	(11.9%, 28.9%)	54	25.0%	(18.9%, 32.2%)
Other Community-based Care	34	27.2%	(15.1%, 43.9%)	16	31.0%	(14.0%, 55.4%)	*	*	*

^b Disclaimer: 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were mapped to 2021 and 2023 categories where it was possible.

 $^{\rm c}$ In 2021, this category was named Nursing Home/Extended Care.

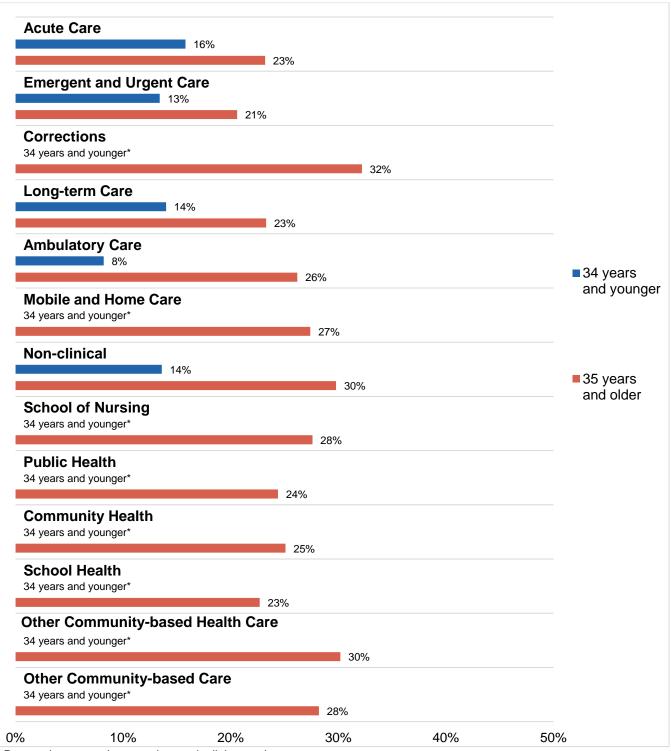
^d In 2021, this category was named Mobile Care Unit.

- Categories were not available.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Figure 5 on the following page shows nurses' plans to work five years or less by setting and age in 2023. Nurses aged 34 years and younger who only plan to work for the next five years most commonly worked in acute care (15.8 percent), long-term care (14.0 percent), and nonclinical settings (13.6 percent). Nurses aged 35 and older who only plan to work for the next five years mostly worked in corrections (32.2 percent), other community-based health care settings, (30.2 percent), and non-clinical settings (29.8 percent).

Figure 5. Plans to Work Five Years or Less by Setting and Age, 2023a-b



^a Respondents were instructed to mark all that apply.

^b Disclaimer: 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were mapped to 2021 and 2023 categories where it was possible.

* Data are suppressed if count is less than 10 or sample population was less than 20.

2023 Survey of Michigan Nurses Survey Report 46 Nurses who planned to work five years or less were also explored to determine if there were differences based on current position (Table 26). In 2023, among RNs, the highest percentage of nurses planning on leaving the workforce in the next five years was in other health nonnursing related fields (38.0 percent), while for LPNs, the highest percentage was among those working in education, research, and consulting (46.3 percent). The second highest percent among RNs was travel nurses (28.7 percent), while the second highest for LPNs was among patient educators (34.3 percent).

Overall, for both RNs and LPNs, there has been an increase in the percentage of nurses planning on leaving the nursing workforce within the next five years across most of positions listed below although most of these are not significant (Table 26). Among RNs since 2019, there has been a significant increase in the percentage of nurses working as staff nurses (14.2 percent to 22.1 percent), patient educators (13.1 percent to 25.9 percent), in other health-related fields (16.8 percent to 26.8 percent), and in other health non-nursing related fields (23.1 percent to 38.0 percent), which had the largest increase. RNs had a decrease in the percentage of nurses leaving the workforce among school nurses; however, this was not significant (24.1 percent to 21.7 percent). LPNs had no significant increases or decreases in the percentage of nurses working in the positions listed in the table below; however, the largest increase in LPNs leaving the workforce within the next five years was among nurses working in education, research, and consulting (19.7 percent to 46.3 percent).

The number of staff nurses who plan to only work for five years or less is large and it will take a lot of effort to replace these nurses, as will replacing patient educators and faculty nurses as they require more specialized training. The number of APRNs and nurse anesthetists who plan on leaving the workforce in the next five years is also concerning considering educational level entry requirements for both positions.

	2019 ^b				202	21	2023			
Position	RNs=1,596			RNs=6	,842	RNs=5,633				
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI	
Staff Nurse	273	14.2%	(10.6%, 18.8%)	2,921	17.0%	(15.7%, 18.4%)	2,154	22.1%	(21.1%, 23.1%)	
Faculty ^c	87	20.2%	(13.1%, 29.8%)	292	25.0%	(20.4%, 30.3%)	216	25.9%	(22.4%, 29.7%)	
Education, Research, & Consulting ^d	240	21.0%	(16.3%, 26.6%)	600	25.1%	(21.8%, 28.7%)	509	25.6%	(23.3%, 28.1%)	
School Nurse ^e	29	24.1%	(12.2%, 42.1%)	65	22.1%	(13.7%, 33.6%)	63	21.7%	(16.4%, 28.2%)	
Telehealth	-	-	-	218	20.8%	(15.9%, 26.7%)	170	20.7%	(17.5%, 24.3%)	
Travel Nurse	34	20.5%	(10.3%, 36.7%)	-	-	-	126	28.7%	(24.6%, 33.2%)	
Executives ^f	55	23.3%	(14.1%, 36.0%)	332	23.7%	(19.4%, 28.6%)	283	27.8%	(24.7%, 31.2%)	
Patient Educator	247	13.1%	(9.5%, 17.9%)	374	22.3%	(18.4%, 26.8%)	404	25.9%	(23.3%, 28.7%)	

Table 26. Plans to Work Five Years or Less by Position: 2019, 2021, & 2023^a

		201	9 ^b		202	21		2023	8
Position		RNs=1	,596		RNs=6	5,842		RNs=5,	633
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
APRN and Nurse Anesthetist	30	12.8%	(5.0%, 29.0%)	456	14.6%	(11.7%, 18.1%)	407	15.7%	(13.9%, 17.7%)
Managerial ^g	144	17.6%	(12.2%, 24.6%)	428	17.6%	(14.3%, 21.5%)	349	20.3%	(18.1%, 22.7%)
Military Health Services ^h	-	-	-	23	21.0%	(9.2%, 41.1%)	17	23.7%	(14.5%, 36.2%)
Other Health Services ⁱ	284	16.8%	(12.9%, 21.6%)	1,113	25.2%	(22.7%, 27.8%)	919	26.8%	(25.0%, 28.7%)
Other Health Non-related	173	23.1%	(17.4%, 29.9%)	20	25.7%	(11.6%, 47.6%)	16	38.0%	(22.7%, 56.1%)
		201	9 ^b		202	21		2023	}
Position		LPNs=	-184		LPNs:	=650		LPNs=4	122
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Staff Nurse	45	16.7%	(8.5%, 30.1%)	381	17.9%	(14.4%, 22.1%)	205	19.1%	(16.4%, 22.1%)
Faculty ^c	11	14.4%	(3.5%, 43.7%)	*	*	*	*	*	*
Education, Research, & Consulting ^d	15	19.7%	(6.9%, 44.9%)	21	25.8%	(11.9%, 47.2%)	18	46.3%	(31.0%, 62.4%)
School Nurse ^e	*	*	*	11	19.2%	(5.6%, 48.7%)	*	*	*
Telehealth	-	-	-	19	22.1%	(9.1%, 44.4%)	*	*	*
Travel Nurse	*	*	*	-	-	-	12	24.5%	(13.8%, 39.7%)
Executives ^f	0	0	(0.0%, 0.0%)	17	22.6%	(9.0%, 46.3%)	*	*	*
Patient Educator	42	15.3%	(7.4%, 29.0%)	37	21.5%	(11.3%, 37.1%)	43	34.3%	(25.4%, 44.5%)
APRN and Nurse Anesthetist	*	*	*	0	0	(0.0%, 0.0%)	0	0.0%	(0.0%, 0.0%)
Managerial ^g	12	12.8%	(3.1%, 40.6%)	58	13.9%	(7.2%, 25.1%)	42	23.7%	(17.3%, 31.6%)
Military Health Services ^h	-	-	-	*	*	*	*	*	*
Other Health Services ⁱ	24	13.7%	(5.0%, 32.4%)	89	27.4%	(19.2%, 37.5%)	64	26.3%	(20.1%, 33.6%)
Other Health Non-related	24	34.2%	(18.6%, 54.1%)	*	*	*	*	*	*

^b Disclaimer: 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were mapped to 2021 and 2023 categories where it was possible.

- ^c In 2021, this category also included Nurse Post Secondary Educators.
- ^d In 2021, this category also included the following: Nurse Secondary Educator, Professional Nurse Training, Nurse Consultant, & Nurse Researcher.
- ^e In 2021, this category was named School Health Nurse K-12.
- ^f In 2021, this category was named Nurse Executive/Administrator.
- ^g In 2021, this category was named Nurse Manager/Supervisor.
- ^h In 2021, this category was named Reserve and Active Military.
- ⁱ In 2021, this category was named Other Health Related.
- * Data are suppressed if count is less than 10 or sample population was less than 20.

-Response option was not available.

Nurses who planned to work five years or less were also explored to determine if there were differences among current specialties (Table 27). In 2023, among RNs the highest percentage of nurses planning on leaving the workforce in the next five years were in other non-clinical specialties (28.7 percent), followed by academia (27.2 percent). For LPNs, the highest percentage of nurses planning on leaving the workforce in the next five years was among those working in community care (27.1 percent), followed by child and family health (24.6 percent).

Overall, for both RNs and LPNs, there has been an increase in the percentage of nurses planning on leaving the nursing workforce within the next five years across most of positions listed below although most of these are not significant (Table 27). Among RNs, between 2019 and 2023, there was a significant increase in the percentage of nurses planning on leaving the workforce within the next five years among those working in care management (17.1 percent to 24.9 percent), critical care (13.0 percent to 23.4 percent), hospice (13.1 percent to 24.1 percent), medical-surgical & and wound care (10.4 percent to 19.4 percent), other non-clinical fields (16.9 percent to 28.7 percent), and specialty care (14.4 percent to 22.6 percent). LPNs did not have any significant increases or decrease in the percentage of nurses planning on leaving the workforce within the next five years. Among LPNs, there was a decrease for nurses working in behavioral health; however, this was not significant (15.0 percent to 11.4 percent).

	2019 ^b				202	1	2023			
Specialty	RNs=4,004				RNs=7	,973	RNs = 3,883			
•••	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI	
Academia	87	20.2%	(13.1%, 29.8%)	284	24.9%	(20.2%, 30.2%)	219	27.2%	(23.6%, 31.2%)	
Adult Health	96	15.3%	(9.4%, 23.8%)	858	15.0%	(12.8%, 17.5%)	820	21.3%	(19.7%, 23.0%)	
Anesthesia	30	12.8%	(5.0%, 29.0%)	160	18.2%	(13.0%, 24.9%)	146	19.6%	(16.2%, 23.5%)	

Table 27. Plans to Work Five Years or Less by Specialty: 2019, 2021, & 2023ª

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		201	9 ^b		202	1		2023	}
Specialty		RNs=4	,004		RNs=7	,973		RNs = 3	,883
• •	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Behavioral Health ^c	136	15.8%	(10.6%, 22.9%)	312	18.7%	(14.8%, 23.4%)	249	21.2%	(18.5%, 24.2%)
Care Management ^d	299	17.1%	(13.3%, 21.8%)	624	22.4%	(19.3%, 25.8%)	639	24.9%	(22.9%, 27.0%)
Child & Family Health ^e	151	12.3%	(8.0%, 18.5%)	463	15.4%	(12.4%, 19.0%)	417	18.1%	(16.2%, 20.2%)
Community Care	86	14.0%	(8.2%, 22.9%)	282	23.3%	(18.7%, 28.6%)	184	22.6%	(19.3%, 26.3%)
Critical Care	193	13.0%	(9.0%, 18.5%)	601	15.7%	(13.0%, 18.8%)	528	23.4%	(21.5%, 25.4%)
Dialysis Nurse	38	10.7%	(4.3%, 24.3%)	69	12.3%	(6.5%, 22.1%)	76	25.4%	(20.0%, 31.6%)
Geriatric Care	176	13.7%	(9.4%, 19.6%)	426	15.9%	(12.7%, 19.7%)	386	21.0%	(18.8%, 23.4%)
Hospice ^f	114	13.1%	(8.1%, 20.5%)	202	17.5%	(12.9%, 23.3%)	192	24.1%	(20.7%, 27.8%)
Medical-Surgical & Wound Care	187	10.4%	(6.8%, 15.6%)	621	12.8%	(10.4%, 15.7%)	518	19.4%	(17.6%, 21.3%)
Occupational Health and Transitions of Care	57	15.0%	(8.0%, 26.5%)	209	20.1%	(15.2%, 26.1%)	155	18.7%	(15.6%, 22.3%)
Other ^g	235	20.3%	(15.7%, 25.9%)	771	24.2%	(21.3%, 27.3%)	680	27.8%	(25.7%, 30.0%)
Other non-clinical specialties	256	16.9%	(12.8%, 22.0%)	170	24.7%	(18.8%, 31.7%)	127	28.7%	(23.8%, 34.1%)
Phlebotomy, Testing, & Diagnostics	92	21.2%	(14.1%, 30.6%)	81	21.3%	(13.8%, 31.4%)	98	24.2%	(19.5%, 29.7%)
Rehabilitation	61	12.2%	(6.2%, 22.7%)	179	14.9%	(10.4%, 20.9%)	134	19.4%	(16.0%, 23.3%)
Specialty Care ^h	393	14.4%	(11.3%, 18.2%)	558	15.1%	(12.4%, 18.3%)	544	22.6%	(20.7%, 24.7%)
Surgical Services ⁱ	182	19.1%	(14.1%, 25.4%)	658	21.7%	(18.7%, 25.0%)	531	24.5%	(22.3%, 26.8%)
Women & Infants Health ^j	205	15.8%	(11.4%, 21.4%)	445	17.7%	(14.4%, 21.5%)	324	19.0%	(16.8%, 21.5%)
		20)19 ^b		20	21		2023	3
Specialty		LPN	s=413		LPNs	= 875		LPNs =	344
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Academia	11	14.4	% (3.5%, 43.7%)	17	19.9%	(7.4%, 43.5%)	*	*	*
Adult Health	15	16.3		177	16.4%	(11.7%, 22.6%)	99	20.1%	(16.2%, 24.6%)
Anesthesia	*	*	*	0	0	(0.0%, 0.0%)	0	0.0%	(0.0%, 0.0%)

		2019 ¹)		20	21		2023	
Specialty		LPNs=4	13		LPNs	= 875		LPNs = 3	344
• •	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Behavioral Health ^c	19	15.0%	(5.1%, 36.7%)	28	17.0%	(7.3%, 34.6%)	12	11.4%	(5.8%, 21.3%)
Care Management ^d	24	13.5%	(4.9%, 32.2%)	25	19.0%	(8.2%, 38.0%)	26	18.7%	(12.0%, 28.0%)
Child & Family Health ^e	40	22.1%	(12.0%, 37.1%)	107	25.6%	(18.3%, 34.6%)	61	24.6%	(18.6%, 31.8%)
Community Care	18	12.9%	(3.9%, 34.9%)	29	17.1%	(7.5%, 34.4%)	20	27.1%	(17.2%, 39.9%)
Critical Care	*	*	*	16	19.4%	(6.9%, 43.7%)	*	*	*
Dialysis Nurse	*	*	*	*	*	*	*	*	*
Geriatric Care	71	14.1%	(7.8%, 24.0%)	151	14.0%	(9.4%, 20.4%)	105	19.1%	(15.5%, 23.3%)
Hospice ^f	23	10.6%	(3.3%, 29.2%)	17	9.8%	(2.5%, 32.0%)	18	11.8%	(6.5%, 20.4%)
Medical-Surgical & Wound Care	*	*	*	62	14.5%	(7.8%, 25.3%)	53	17.7%	(13.0%, 23.6%)
Occupational Health and Transitions of Care	21	18.5%	(7.3%, 39.4%)	11	11.4%	(2.4%, 40.4%)	*	*	*
Other ^g	12	18.7%	(5.6%, 46.9%)	87	26.9%	(18.7%, 37.0%)	56	24.4%	(18.3%, 31.8%)
Other non-clinical specialties	48	16.9%	(8.9%, 29.8%)	*	*	*	*	*	*
Phlebotomy, Testing, & Diagnostics	*	*	*	20	21.3%	(8.9%, 43.0%)	14	17.5%	(9.0%, 31.4%)
Rehabilitation	22	9.9%	(2.9%, 28.8%)	60	12.8%	(6.5%, 23.5%)	32	16.9%	(11.8%, 23.5%)
Specialty Care ^h	27	14.6%	(5.8%, 32.2%)	22	23.4%	(10.6%, 44.2%)	18	23.8%	(14.5%, 36.5%)
Surgical Services ⁱ	*	*	*	18	37.2%	(19.1%, 59.8%)	*	*	*
Women & Infants Health ^j	18	26.9%	(11.9%, 50.0%)	15	23.3%	(8.9%, 48.6%)	*	*	*

^b Disclaimer: 2019 data categories and questions were structured differently compared to 2021 and 2023. Categories were mapped to 2021 and 2023 categories where it was possible.

^c In 2021, this category was named Psychiatric/Mental Health/Substance Abuse.

^d In 2021, this category included Care Management/Care Coordination & Health Clinical Informatics.

^e In 2021, this category included Pediatrics & Family Health.

^f In 2021, this category also included Palliative Care.

⁹ In 2021, this category included: Other Medical, Other Clinical Specialties, Flight Nurse, and Other.

^h In 2021, this category included: Cardiology, Hematology, Oncology, Nephrology & Thoracic Care.
 ⁱ In 2021, this category included: Pre-op/Post-op Recovery Room & Operating Room/Scrub Nurse.
 ^j In 2021, this category included: Women's Health, Maternal-Child Health/Obstetrics, & Neonatal.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Reasons for Leaving Nursing

Among those who indicated that they planned to stop working in five years or less, they were also asked their reason for leaving nursing (Table 28). In 2023, the main reason for leaving the workforce for both RNs and LPNs was due to retirement (69.5 percent and 68.2 percent, respectively). For both RNs and LPNs, leaving nursing due to retirement has significantly decreased since 2019 (RNs = 84.8 percent to 69.5 percent; LPNs = 82.4 percent to 68.2 percent). Among RNs, there has also been a significant increase in nurses leaving the workforce due to violence or safety reasons (7.0 percent to 11.2 percent). This has decreased among LPNs since 2019 although this is not a significant decrease (6.1 percent to 5.0 percent).

For both RNs and LPNs, the largest and most significant increase in the reason why nurses are leaving were related to nurses being too stressed or burned out (RNs = 15.6 percent to 34.7 percent; LPN = 19.8 percent to 31.8 percent). Another reason that had a significant increase since 2019 was workload for both RNs and LPNs (RNs = 14.5 percent to 23.0 percent; LPNs = 18.3 percent to 24.6 percent).

	2	2019	2	021	2	2023
Reason	RN=	2,621	RN=	5,686	RN=	4,575
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Retiring	84.8%	(83.4%, 86.1%)	80.5%	(79.4%, 81.5%)	69.5%	(68.1%, 70.8%)
Care for home or family	7.8%	(6.8%, 8.9%)	5.3%	(4.7%, 5.9%)	6.9%	(6.2%, 7.7%)
Enrolled in education program	4.2%	(3.5%, 5.0%)	4.6%	(4.1%, 5.2%)	3.4%	(2.9%, 4.0%)
Difficulty finding a nursing position	1.3%	(0.9%, 1.8%)	0.6%	(0.5%, 0.9%)	0.3%	(0.2%, 0.5%)
Too stressful/burned out	15.6%	(14.3%, 17.0%)	21.9%	(20.8%, 23.0%)	34.7%	(33.3%, 36.1%)
Difficulties with EMR/new technology	1.9%	(1.4%, 2.5%)	1.3%	(1.1%, 1.7%)	1.4%	(1.1%, 1.8%)
Violence/safety issues	7.0%	(6.1%, 8.0%)	4.2%	(3.7%, 4.7%)	11.2%	(10.3%, 12.1%)
Relocating/moving to another area	-	-	3.2%	(2.8%, 3.7%)	2.6%	(2.2%, 3.1%)
COVID-related	-	-	-	-	2.1%	(1.7%, 2.6%)
Temporary disability or long-term illness	-	-	-	-	1.1%	(0.8%, 1.4%)

Table 28. Reasons for Leaving Nursing for those Leaving Nursing in Less than Five Years: 2019, 2021, & 2023ª

	2	2019	2	021		2023
Reason	RN=	2,621	RN=	5,686	RN=	4,575
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Permanent disability leave	-	-	-	-	0.3%	(0.2%, 0.5%)
Wages	-	-	-	-	17.9%	(16.8%, 19.0%)
Work culture	-	-	-	-	16.6%	(15.5%, 17.7%)
Workload	14.5%	(13.2%, 15.9%)	-	-	23.0%	(21.8%, 24.2%)
Better Schedule	-	-	-	-	11.1%	(10.2%, 12.0%)
Benefits and employer supports	-	-	-	-	9.5%	(8.7%, 10.4%)
Other ^b	2.9%	(2.3%, 3.6%)	2.1%	(1.8%, 2.5%)	1.6%	(1.3%, 2.0%)
Decen	LPN=	270	LPN=	560	LPN=	- 338
Reason	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Retiring	82.4%	(77.4%, 86.5%)	80.0%	(76.5%, 83.1%)	68.2%	(63.1%, 72.9%)
Care for home or family	5.4%	(3.3%, 8.8%)	4.0%	(2.7%, 6.0%)	4.6%	(2.8%, 7.4%)
Enrolled in education program	5.1%	(3.0%, 8.4%)	5.1%	(3.5%, 7.2%)	*	*
Difficulty finding a nursing position	*	*	0.4%	(0.1%, 1.4%)	*	*
Too stressful/burned out	19.8%	(15.5%, 25.0%)	22.1%	(18.8%, 25.7%)	31.8%	(27.1%, 36.9%)
Difficulties with EMR/new technology	*	*	0.7%	(0.2%, 1.7%)	*	*
Violence/safety issues	6.1%	(3.8%, 9.6%)	3.7%	(2.4%, 5.6%)	5.0%	(3.1%, 7.9%)
Relocating/moving to another area	-	-	5.1%	(3.5%, 7.2%)	*	*
COVID-related	-	-	-	-	4.9%	(3.1%, 7.8%)
Temporary disability or long-term illness	-	-	-	-	*	*
Permanent disability leave	-	-	-	-	*	*
Wages	-	-	-	-	18.2%	(14.5%, 22.7%)
Work culture	-	-	-	-	12.7%	(9.6%, 16.7%)
Workload	18.3%	(14.1%, 23.3%)	-	-	24.6%	(20.3%, 29.5%)
Undesirable schedule	-	-	-	-	5.0%	(3.1%, 7.9%)
Benefits and employer supports	-	-	-	-	7.8%	(5.4%, 11.2%)
Other ^b	4.1%	(2.3%, 7.2%)	1.4%	(0.7%, 2.8%)	*	*

^b Other includes reasons such as family care, not enjoying the profession and/or needing a change, a few respondents mentioned concerns about COVID-19. * Data are suppressed if count is less than 10 or sample population was less than 20.

-Categories were not available.

NEW NURSE EXPERIENCE

Nurses who indicated they had been working as a nurse less than three years were asked to indicate how prepared they felt when entering the nursing workforce (Table 29). Half of RNs and about two thirds of LPNs in 2019 felt adequately prepared, but this decreased in 2023, more significantly for RNs (RNs = 51.6 percent to 39.9 percent; LPNs = 64.7 percent to 49.9 percent). Overall, for both LPNs and RNs, respondents indicated they do not have enough clinical time and enough skills labs or simulation time. There was a significant increase among both RNs and LPNs since 2019 who indicated that they are not receiving enough clinical time (RNs = 32.9 percent to 45.9 percent; LPNs = 18.3 percent to 41.5 percent). RNs also had a significant increase in responses for not having enough skills labs or simulation time (17.9 percent to 24.9 percent). LPNs also had an increase in responses for not having enough critical thinking/prioritization practice; however, this increase was not considered significant (11.0 percent to 20.0 percent). Due to the timeframe of the education of these new nurses, the COVID-19 impact on availability of clinical placements and access to lab facilities might be reflected in this data.

It may be important to explore whether there are specific job settings that nurses feel less prepared in. This may be indicative of a need for more exposure during nursing education as well as support during transition to practice, including mentoring for early years of career. All the information points to a need for more, focus emphasis on assessing and improving comfort and confidence levels of new nurses in order to support retention of them in the profession.

	20	019		2021	20	23
Level of Preparedness	RN=	1,158	RN=	2,104	RN=	758
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Adequately prepared	51.6%	(48.7%, 54.4%)	50.5%	(48.4%, 52.6%)	39.9%	(36.5%, 43.4%)
Not enough classroom time	2.5%	(1.7%, 3.5%)	2.0%	(1.5%, 2.7%)	3.6%	(2.5%, 5.2%)
Not enough clinical time	32.9%	(30.3%, 35.7%)	33.5%	(31.5%, 35.5%)	45.9%	(42.4%, 49.5%)
Not enough skills lab/simulation time	17.9%	(15.8%, 20.2%)	18.1%	(16.5%, 19.8%)	24.9%	(22.0%, 28.1%)
Not enough critical thinking/ prioritization practice	25.5%	(23.1%, 28.1%)	21.0%	(19.3%, 22.8%)	25.5%	(22.5%, 28.7%)
Other	3.7%	(2.8%, 5.0%)	2.2%	(1.7%, 2.9%)	2.8%	(1.8%, 4.2%)
Land of Duan and duan	LPN=	190	LPN=	422	LPN=	118
Level of Preparedness	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Adequately prepared	64.7%	(57.7%, 71.2%)	61.3%	(56.6%, 65.8%)	49.9%	(41.0%, 58.8%)
Not enough classroom time	*	*	3.6%	(2.2%, 5.8%)	*	*
Not enough clinical time	18.3%	(13.5%, 24.4%)	28.7%	(24.6%, 33.2%)	41.5%	(33.0%, 50.5%)

Table 29. Preparedness for Entering Nursing Workforce: 2019, 2021, & 2023ª

2023 Survey of Michigan Nurses Survey Report

Level of Dronorodnoog	LPN=	190	LPN=	422	LPN=	118
Level of Preparedness	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Not enough skills lab/simulation time	18.0%	(13.2%, 24.0%)	18.1%	(14.7%, 22.1%)	26.8%	(19.6%, 35.4%)
Not enough critical thinking/ prioritization practice	11.0%	(7.3%, 16.2%)	9.4%	(7.0%, 12.6%)	20.0%	(13.8%, 28.1%)
Other	*	*	1.0%	(0.4%, 2.5%)	*	*

* Data are suppressed if count is less than 10 or sample population was less than 20.

The 2020 survey was the first year that nurses were asked about their experiences with finding employment (data not shown). These questions were only asked to nurses who indicated they have been working as a nurse for three years or less. In 2023, both RNs and LPNs indicated that it was easy or very easy for them to find a nursing position (81.0 percent and 81.3 percent, respectively; Table 30), which was only significantly greater among RNs. Similarly, about half of RNs and almost 60 percent of LPNs indicated it was easy or very easy to find a nursing position in their preferred practice area (50.7 percent and 56.2 percent, respectively). For RNs, this was a significant increase from 2021; however, for LPNs, this was a slight decrease which was not significant. COVID-19 could have potentially impacted these numbers due to the resulting nursing workforce shortage.

In 2023, most nurses did not have a residency placement as part of their nursing program (RN = 49.5 percent; LPN = 18.0 percent); however, there was a significant increase among RNs who had a residency program since 2021 (36.6 percent to 49.5 percent). This also increased for LPNs although this increase was not considered significant. It may be interesting to explore whether the increase in residency programs since 2021 is a result of the COVID-19 impacts on clinical and lab exposure in nursing educational programs during the pandemic. For RNs, 60.4 percent indicated that they were satisfied with their orientation programs at their place of employment, while only 47.8 percent of LPNs were satisfied. For RNs, this was a significant decrease from 2021 (65.9 percent to 60.4 percent), but for LPNs, this number was a slight increase although the change was not significant (46.5 percent to 47.8 percent). This could be explained by the impact that COVID-19 had on staffing shortages, workload of preceptors, and clinical experiences.

	20	021	20	23
Finding Employment	RN =	2,107	RN=	762
	Estimate	95% CI	Estimate	95% CI
Difficulty Finding a Nursing Po	sition	-		
Very difficult	1.5%	(1.1%, 2.1%)	*	*
Difficult	9.9%	(8.7%, 11.2%)	4.6%	(3.3%, 6.3%)
Neutral	27.3%	(25.4%, 29.2%)	13.9%	(11.6%, 16.5%)

Table 30. Finding Employment for Nurses Entering Workforce: 2021 & 2023ª

		2021	2	023	
Finding Employment	RN :	= 2,107	RN=	762	
	Estimate	95% CI	Estimate	95% CI	
Difficulty Finding a Nursing P	osition	-	-		
Easy	34.8%	(32.8%, 36.9%)	34.8%	(31.5%, 38.3%)	
Very easy	26.5%	(24.7%, 28.4%)	46.2%	(42.7%, 49.8%)	
Difficulty Finding a Nursing P	osition in Preferred Prac	tice Area			
Very difficult	10.2%	(9.0%, 11.6%)	5.5%	(4.1%, 7.4%)	
Difficult	23.1%	(21.4%, 24.9%)	14.3%	(12.0%, 17.0%)	
Neutral	30.6%	(28.7%, 32.6%)	29.5%	(26.4%, 32.8%)	
Easy	24.1%	(22.3%, 26.0%)	29.1%	(26.0%, 32.4%)	
Very easy	12.0%	(10.7%, 13.5%)	21.6%	(18.8%, 24.7%)	
Had a Residency Placement as	Part of Nursing Program	n			
Yes	36.6%	(34.6%, 38.7%)	49.5%	(46.0%, 53.0%)	
No	63.4%	(61.3%, 65.4%)	50.5%	(47.0%, 54.0%)	
Satisfaction with Orientation a	at Place of Employment		•		
Very dissatisfied	3.4%	(2.7%, 4.3%)	4.2%	(3.0%, 5.9%)	
Dissatisfied	10.0%	(8.8%, 11.4%)	11.3%	(9.2%, 13.7%)	
Neutral	20.8%	(19.1%, 22.6%)	24.2%	(21.3%, 27.4%)	
Satisfied	48.6%	(46.5%, 50.7%)	42.1%	(38.6%, 45.6%)	
Very satisfied	17.3%	(15.7%, 19.0%)	18.3%	(15.7%, 21.2%)	
	LPN :	= 424	LPN= 121		
Finding Employment	Estimate	95% CI	Estimate	95% CI	
Difficulty Finding a Nursing P	osition				
Very difficult	0.0%	(0.0%, 0.0%)	*	*	
Difficult	2.5%	(1.4%, 4.5%)	*	*	
Neutral	19.5%	(16.0%, 23.5%)	14.1%	(9.0%, 21.4%)	
Easy	29.9%	(25.7%, 34.4%)	26.0%	(19.0%, 34.5%)	
Very easy	48.2%	(43.5%, 53.0%)	55.3%	(46.4%, 63.9%)	
Difficulty Finding a Nursing Po	osition in Preferred Prac		•		
Very difficult	4.9%	(3.2%, 7.4%)	*	*	
Difficult	11.9%	(9.2%, 15.3%)	15.3%	(9.9%, 22.8%)	
Neutral	25.5%	(21.6%, 29.9%)	26.4%	(19.3%, 34.9%)	
Easy	25.6%	(21.7%, 30.0%)	26.4%	(19.3%, 34.9%)	
Very easy	32.0%	(27.7%, 36.6%)	29.8%	(22.3%, 38.5%)	

	20	021	2023			
Finding Employment	RN =	2,107	RN=	762		
	Estimate 95% CI		Estimate	95% CI		
Had a Residency Placement as	Part of Nursing Program	-	-			
Yes	11.9%	(9.2%, 15.3%)	18.0%	(12.2%, 25.8%)		
No	88.1%	(84.7%, 90.8%)	82.0%	(74.2%, 87.8%)		
Satisfaction with Orientation a	t Place of Employment					
Very dissatisfied	8.7%	(6.4%, 11.8%)	7.0%	(3.7%, 13.0%)		
Dissatisfied	13.1%	(10.2%, 16.6%)	15.9%	(10.4%, 23.4%)		
Neutral	31.6%	(27.4%, 36.2%)	29.3%	(21.9%, 37.9%)		
Satisfied	30.7%	(26.5%, 35.2%)	36.4%	(28.4%, 45.3%)		
Very satisfied	15.8%	(12.6%, 19.6%)	11.4%	(6.9%, 18.3%)		

^a Note: These questions were not asked in 2019, so comparisons cannot be made.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Nurses who indicated they had been working as a nurse less than three years were also asked about exposure to nursing during middle or high school, the characteristics of their nursing program, and program supports (Table 31 on the following page). Nursing program support includes items such as tutoring, mentorships, language support, financial support, and work study.

New nurses had exposure to nursing through programs completed in middle or high school to explore a career in nursing (RNs = 16.1 percent; LPNs = 15.5 percent; Table 31). Less than 10 percent of new RNs completed a program in middle or high school to build academic skills related to nursing.

RNs were statistically more likely to participate in a full-time program compared to LPNs (86.6 percent vs. 74.4 percent), while LPNs were statistically more likely to participate in part-time programs (20.2 percent vs. 8.0 percent). Over half of new nurses reported reduced inperson clinical experience due to COVID-19 (RNs = 62.0 percent and LPNs = 49.3 percent; Table 31), with RNs being statistically more likely to experience this reduction in clinical experience. More than half of nursing students indicated having taken out student loans (66.5 percent LPNs and 71.8 percent for RNs). Most nurses had several academic supports available to them (RNs = 82.9 percent; LPNs = 69.2 percent). RNs were statistically more likely to have academic support (88.1 percent vs 71.3 percent), support to navigate their college experience (39.8 percent vs. 17.9 percent), and scholarships (61.7 percent vs 33.1 percent) compared to LPNs.

Table 31. New Nurse Educational Program Experience, 2023

New Nurse Educational Program	RN =	761	LPN = 119		
Experience	Estimate	95% CI	Estimate	95% CI	
Exposure to Nursing During Middle or High	School	· · · · · · · · · · · · · · · · · · ·			
Yes, programs completed in middle or high school to explore career in nursing	16.1%	(13.7%, 18.9%)	15.5%	(10.1%, 23.1%)	
Yes, program completed in middle or high school to build academic skills related to nursing	9.4%	(7.5%, 11.7%)	12.2%	(7.5%, 19.3%)	
No	72.0%	(68.7%, 75.1%)	70.2%	(61.5%, 77.7%)	
Other	2.5%	(1.6%, 3.9%)	0.0%	(0.0%, 0.0%)	
Nursing Program Characteristics ^a					
Holistic admissions	27.3%	(24.2%, 30.6%)	*	*	
Public	55.0%	(51.4%, 58.5%)	40.1%	(31.7%, 49.1%)	
Private	24.1%	(21.2%, 27.3%)	8.2%	(4.5%, 14.5%)	
For profit institutions	7.8%	(6.1%, 9.9%)	8.5%	(4.7%, 14.9%)	
Online	30.4%	(27.2%, 33.8%)	38.5%	(30.2%, 47.5%)	
In-person	54.1%	(50.5%, 57.6%)	63.1%	(54.1%, 71.2%)	
Hybrid online and in-person program	49.4%	(45.9%, 53.0%)	40.9%	(32.5%, 49.9%)	
Full-time program	86.6%	(84.0%, 88.8%)	74.4%	(65.9%, 81.4%)	
Part-time program	8.0%	(6.3%, 10.2%)	20.2%	(14.0%, 28.3%)	
Accelerated graduation date due to COVID	4.3%	(3.1%, 6.0%)	*	*	
Reduced in-person clinical experience due to COVID	62.0%	(58.5%, 65.4%)	49.3%	(40.5%, 58.2%)	
Nursing Program Supports a		· · · · · ·			
Academic supports available	88.1%	(85.5%, 90.3%)	71.3%	(62.5%, 78.7%)	
Supports available to navigate college experience	39.8%	(36.3%, 43.4%)	17.9%	(12.0%, 25.9%)	
English as a second language supports available	10.9%	(8.8%, 13.4%)	*	*	
Mentorship	23.8%	(20.9%, 27.0%)	13.7%	(8.6%, 21.1%)	
Scholarship	61.7%	(58.1%, 65.2%)	33.1%	(25.2%, 42.1%)	
Work study	25.6%	(22.6%, 28.9%)	19.9%	(13.7%, 28.1%)	
Student loans	66.5%	(63.0%, 69.8%)	71.8%	(63.0%, 79.2%)	
Other	*	*	*	*	

^a Respondents were instructed to mark all that apply.
* Data are suppressed if count is less than 10 or sample population was less than 20.

WORKPLACE VIOLENCE

The 2020 survey was the first year to ask nurses about their experiences with workplace violence. All questions were optional for respondents, and definitions were provided for each term used in the question (see questions 57 - 63 in Appendix A).

Basic Demographics

Similar to 2022, younger nurses were more likely to experience workplace violence (Table 32). Over half the RNs 34 years or younger indicated they experienced workplace violence in the past year (younger than 25 years old = 62.6 percent; 25 to 34 years old = 59.6 percent). About one-third of LPNs 25 to 44 years old experienced workplace violence in the past year (25 to 34 years old = 30.9 percent; 35 to 44 years old = 29.1 percent). Male nurses continued to be more likely to experience workplace violence (RNs = 49.9 percent; LPNs = 33.2 percent).

Table 32. Demographics of those Nurses who Experienced Workplace Violence in the Pas	<u>st Year,</u>
2023	

Characteristics		RNs	LPNs		
Characteristics	n	Estimate	n	Estimate	
Total	5,149	44.2%	330	30.5%	
Age	-	-	-	-	
<25 years	77	62.6%	*	*	
25 to 34 years	811	59.6%	34	39.5%	
35 to 44 years	1,179	47.0%	75	30.9%	
45 to 54 years	1,226	38.5%	82	29.1%	
55 to 64 years	1,306	32.9%	93	27.4%	
65+ years	358	19.3%	29	16.4%	
Gender	-	-	-		
Female	4,412	43.3%	303	30.3%	
Male	565	49.9%	18	33.2%	
Gender non-binary/non-conforming, Genderqueer, Transgender ^a	18	75.6%	0	0.0%	
Prefer not to respond	104	56.7%	*	*	
Ethnicity ^b		-			
Hispanic or Latinx	128	45.9%	12	40.3%	
Middle Eastern	60	40.5%	*	*	
Race ^b					
White	4,675	45.4%	258	33.2%	
Black	181	27.8%	54	23.7%	
American Indian	81	50.4%	16	57.4%	
Asian/ Pacific Islander	132	38.8%	*	*	
Other	155	49.5%	15	40.2%	
Employment Region	-				
Eastern/Central/Western UP	199	45.5%	28	37.7%	
Northwest LP	226	51.1%	13	33.7%	
Northeast LP	95	38.8%	10	29.0%	
West/West Central	813	52.5%	48	31.3%	
East Central	296	45.9%	20	27.1%	
East	354	46.0%	26	30.0%	

Characteristics		RNs	LPNs		
Characteristics	n	Estimate	n	Estimate	
South Central	241	46.5%	13	38.7%	
Southwest	350	47.1%	27	40.0%	
Employment Region					
Southeast	598	41.2%	39	32.8%	
Detroit Metro	1,380	42.8%	86	25.2%	
Outside of MI	67	46.1%	*	*	
Unknown MI Region	512	34.0%	17	33.5%	
Region of Residence		-	-	-	
Upper Peninsula	193	45.5%	27	39.0%	
Northwest LP	226	50.0%	10	30.8%	
Northeast LP	101	38.6%	*	*	
West/West Central	829	51.5%	47	31.3%	
East Central	285	46.9%	20	26.6%	
East	409	46.2%	29	29.6%	
South Central	254	49.3%	15	45.6%	
Southwest	327	46.0%	30	40.8%	
Southeast	484	40.5%	34	32.1%	
Detroit Metro	1,397	42.6%	80	24.0%	
Non-Michigan Residence	157	54.6%	10	44.1%	
Unknown MI Region	483	33.2%	19	36.0%	

^a These options have been combined for the purpose of increasing the likelihood of having enough responses to be included in the analysis. Should the number be high enough, we will revisit separating out options in future surveys.

^b Respondents were instructed to mark all that apply.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Comparison of those who experienced workplace violence in 2022 to 2023 is shown in Table 33. LPNs reported experiencing more workplace violence in 2023 than in 2022 across all demographics while RNs experienced less workplace violence across most demographics, except for some racial groups and some geographical locations. RNs less than 34 years old experienced less workplace violence in 2023 (59.6 percent to 62.6 percent) than in 2022 (62.2 percent to 69.8 percent). When comparing the difference between RNs and LPNs, interpretation needs to be made with caution as there are significantly more RNs compared to LPNs. This does not change the interpretation of individual percentages by themselves but can potentially impact the interpretation of workforce needs.

Table 33. Demographics of those Nurses who Experienced Workplace Violence, 2022-2023

		20		2023					
Characteristics		RNs		LPNs		RNs		LPNs	
	n	Estimate	n	Estimate	n	Estimate	n	Estimate	
Total	6,126	45.8%	455	28.9%	5,149	44.2%	330	30.5%	
Age	Age								
<25 years	60	69.8%	*	*	77	62.6%	*	*	
25 to 34 years	953	62.2%	46	34.8%	811	59.6%	34	39.5%	
35 to 44 years	1,411	47.6%	124	32.8%	1,179	47.0%	75	30.9%	
45 to 54 years	1,530	41.3%	110	26.5%	1,226	38.5%	82	29.1%	
55 to 64 years	1,507	33.1%	106	22.7%	1,306	32.9%	93	27.4%	
65+ years	360	18.2%	40	15.2%	358	19.3%	29	16.4%	
Gender									

	20		2023				
	RNs		LPNs		RNs		LPNs
n	Estimate	n	Estimate	n	Estimate	n	Estimate
5,369	45.1%	407	28.0%	4,412	43.3%	303	30.3%
647		40					33.2%
-	-	-	-	18	75.6%	0	0.0%
-	-	-	-	104	56 7%	*	*
		-		101	00.1 /0		
				-		-	
5,473	46.7%	319	30.3%	4,675	45.4%	258	33.2%
251	33.0%	113	27.2%	181	27.8%	54	23.7%
99	59.6%	18	40.1%	81	50.4%	16	57.4%
155	40.4%	*	*	132	38.8%	*	*
194	54.5%	28	41.5%	155	49.5%	15	40.2%
153	48.5%	19	47.0%	128	45.9%	12	40.3%
69	37.6%	*	*	60	40.5%	*	*
-		-	-	-		-	-
222	46.8%	25	27.8%	199	45.5%	28	37.7%
271		14		226		13	33.7%
94		*	*	95	38.8%	10	29.0%
939	50.7%	70	28.6%	813	52.5%	48	31.3%
341	45.1%	22	19.0%	296	45.9%	20	27.1%
389	45.8%	36	30.6%	354	46.0%	26	30.0%
250	46.9%	16	36.0%	241	46.5%	13	38.7%
449	49.7%	37	35.5%	350	47.1%	27	40.0%
721	45.1%	51	30.9%	598	41.2%	39	32.8%
1,701	43.7%	125	28.2%	1,380	42.8%	86	25.2%
222	54.5%	23	31.8%	67	46.1%	*	*
	36.8%					17	33.5%
-						_	
218	45.1%	22	27.1%	193	45.5%	27	39.0%
							30.8%
		*				*	*
		73				47	31.3%
							26.6%
							29.6%
		*	*				45.6%
		34	35.2%				40.8%
							32.1%
							24.0%
355	47.5%	25	23.8%	157	54.6%	10	44.1%
475	38.9%	22	24.1%	483	33.2%	19	36.0%
	n 5,369 647 647 647 - - 5,473 251 99 155 194 221 271 94 939 341 389 250 449 721 1,701 222 527 98 943 326 463 237 428 590 1,701 355	RNsnEstimate5,36945.1%64751.9%64751.9%5,47346.7%25133.0%9959.6%15540.4%19454.5%6937.6%22246.8%27150.1%9444.9%93950.7%34145.1%38945.8%25046.9%44949.7%72145.1%38945.8%25046.9%44949.7%72145.1%38945.8%25046.9%44345.1%38945.8%25046.9%44345.1%38945.8%25046.9%44949.7%72145.1%38945.8%22254.5%52736.8%21845.1%9847.8%94350.9%32644.8%46346.8%23744.8%42851.1%59045.8%1,70143.5%35547.5%	nEstimaten $5,369$ 45.1% 407 647 51.9% 40 $ 5,473$ 46.7% 319 251 33.0% 113 99 59.6% 18 155 40.4% $*$ 194 54.5% 28 $ 222$ 46.8% 25 271 50.1% 14 94 44.9% $*$ 939 50.7% 70 341 45.1% 22 389 45.8% 36 250 46.9% 16 449 49.7% 37 721 45.1% 51 $1,701$ 43.7% 125 222 54.5% 23 527 36.8% 27 218 45.1% 51 $1,701$ 43.7% 125 222 54.5% 23 527 36.8% 27 218 45.1% 40 237 44.8% 40 237 44.8% 40 237 44.8% 51 $1,701$ 43.5% 51 $1,701$ 43.5% 51 $1,701$ 43.5% 51 $1,701$ 43.5% 51 <t< td=""><td>RNsLPNsnEstimatenEstimate$5,369$$45.1\%$$407$$28.0\%$$647$$51.9\%$$40$$45.0\%$$647$$51.9\%$$40$$45.0\%$$5,473$$46.7\%$$319$$30.3\%$$251$$33.0\%$$113$$27.2\%$$99$$59.6\%$$18$$40.1\%$$155$$40.4\%$$*$$*$$194$$54.5\%$$28$$41.5\%$$194$$54.5\%$$28$$41.5\%$$222$$46.8\%$$25$$27.8\%$$271$$50.1\%$$14$$27.9\%$$94$$44.9\%$$*$$*$$939$$50.7\%$$70$$28.6\%$$341$$45.1\%$$22$$19.0\%$$389$$45.8\%$$36$$30.6\%$$250$$46.9\%$$16$$36.0\%$$449$$49.7\%$$37$$35.5\%$$721$$45.1\%$$51$$30.9\%$$1,701$$43.7\%$$125$$28.2\%$$222$$54.5\%$$23$$31.8\%$$527$$36.8\%$$27$$27.1\%$$218$$45.1\%$$42$$19.0\%$$463$$46.8\%$$40$$30.8\%$$237$$44.8\%$<t< td=""><td>RNs LPNs n a Estimate n Estimate n 5,369 45.1% 407 28.0% 4,412 647 51.9% 40 45.0% 565 - 51.9% 40 45.0% 565 - - - - 18 - - - - 104 - - - 104 - - - 104 - - - 104 - - - 104 - - - 104 - - - 104 - - - 104 - - - 104 - - - - 104 - - - - 104 - - - - 131 - - - - <td< td=""><td>NsLPNsNsnEstimatenEstimatenEstimate$5,369$$45.1\%$$407$$28.0\%$$4,412$$43.3\%$$647$$51.9\%$$40$$45.0\%$$565$$49.9\%$$51.9\%$$40$$45.0\%$$565$$49.9\%$$188$$75.6\%$$104$$56.7\%$$104$$56.7\%$$251$$33.0\%$$113$$27.2\%$$181$$27.8\%$$99$$59.6\%$$18$$40.1\%$$81$$50.4\%$$155$$40.4\%$**$132$$38.8\%$$194$$54.5\%$$28$$41.5\%$$155$$49.5\%$$153$$48.5\%$$19$$47.0\%$$128$$45.9\%$$69$$37.6\%$**$60$$40.5\%$$222$$46.8\%$$25$$27.8\%$$199$$45.5\%$$271$$50.1\%$$14$$27.9\%$$226$$51.1\%$$94$$44.9\%$*$95$$38.8\%$$36$$30.6\%$$354$$939$$50.7\%$$70$$28.6\%$$813$$52.5\%$$341$$45.1\%$$32$$19.0\%$$296$$45.9\%$$389$$45.8\%$$36$$30.6\%$$354$$46.0\%$$250$$46.9\%$$16$$36.0\%$$241$$46.5\%$$449$$49.7\%$$37$$35.5\%$$35$</td><td>RNsLPNsRNsRnEstimatenEstimaten$5,369$$45.1\%$$407$$28.0\%$$4,412$$43.3\%$$303$$647$$51.9\%$$40$$45.0\%$$565$$49.9\%$$18$18$75.6\%$$0$104$56.7\%$$*$104$56.7\%$$*$5,473$46.7\%$$319$$30.3\%$$4,675$$45.4\%$$258$$251$$33.0\%$$113$$27.2\%$$181$$27.8\%$$54$$99$$59.6\%$$18$$40.1\%$$81$$50.4\%$$16$$155$$40.4\%$**$132$$38.8\%$$*$$194$$54.5\%$$28$$41.5\%$$155$$49.5\%$$12$$69$$37.6\%$$14$$27.9\%$$226$$51.1\%$$13$$94$$44.9\%$**$95$$38.8\%$$10$$939$$50.7\%$$70$$28.6\%$$813$$52.5\%$$48$$271$$50.1\%$$14$$27.9\%$$226$$51.1\%$$13$$94$$44.9\%$**$95$$38.8\%$$10$$939$$50.7\%$$70$$28.6\%$$354$$46.0\%$$26$$250$$46.9\%$$22$$30.6\%$$354$$46.0\%$$26$$250$$46.9\%$$51$$30.9\%$$598$$41.2\%$$39$<</td></td<></td></t<></td></t<>	RNsLPNsnEstimatenEstimate $5,369$ 45.1% 407 28.0% 647 51.9% 40 45.0% 647 51.9% 40 45.0% $ 5,473$ 46.7% 319 30.3% 251 33.0% 113 27.2% 99 59.6% 18 40.1% 155 40.4% $*$ $*$ 194 54.5% 28 41.5% 194 54.5% 28 41.5% 222 46.8% 25 27.8% 271 50.1% 14 27.9% 94 44.9% $*$ $*$ 939 50.7% 70 28.6% 341 45.1% 22 19.0% 389 45.8% 36 30.6% 250 46.9% 16 36.0% 449 49.7% 37 35.5% 721 45.1% 51 30.9% $1,701$ 43.7% 125 28.2% 222 54.5% 23 31.8% 527 36.8% 27 27.1% 218 45.1% 42 19.0% 463 46.8% 40 30.8% 237 44.8% <t< td=""><td>RNs LPNs n a Estimate n Estimate n 5,369 45.1% 407 28.0% 4,412 647 51.9% 40 45.0% 565 - 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^a These options have been combined for the purpose of increasing the likelihood of having enough responses to be included in the analysis. Should the number be high enough, we will revisit separating out options in future surveys.
 ^b Respondents were instructed to mark all that apply.

-Data were not available/response was not an option.

* Data are suppressed if count is less than 10 or sample population was less than 20.

The care setting where nurses experienced the most workplace violence was in emergency and urgent care for RNs (72.5 percent) and corrections for LPNs (48.7 percent; Table 34). RNs who experienced workplace violence were statistically more likely compared to LPNs to work in acute care (56.5 percent vs. 36.6 percent).

As previously noted, the setting with the largest decrease in the nursing workforce was in acute care (2019 = 64.9 percent, 2023 = 51.8 percent; Table 19). Interestingly, acute care was also one of the settings that had the largest number of reported experiences of workplace violence in 2023.

Table 34. Nurses who Experienced Workplace Violence by Care Setting, 2023 (top settings in descending order by RNs)^a

Catting		RN= 6,80 7			LPN= 477			
Setting	n	Estimate	95% CI	n	Estimate	95% CI		
Emergent and Urgent Care	865	72.5%	(69.4%, 75.4%)	11	36.7%	(15.4%, 64.9%)		
Corrections	66	62.6%	(50.5%, 73.3%)	15	48.7%	(26.4%, 71.5%)		
Acute Care	3,229	56.5%	(54.8%, 58.2%)	43	36.6%	(23.9%, 51.5%)		
Long term care	304	42.1%	(36.7%, 47.7%)	164	35.0%	(28.1%, 42.6%)		
Community Health	236	40.2%	(34.1%, 46.6%)	33	39.6%	(24.9%, 56.5%)		
School of Nursing	212	37.0%	(30.8%, 43.7%)	*	*	*		
Public Health	155	35.7%	(28.6%, 43.5%)	10	42.4%	(18.4%, 70.6%)		
School Health	68	36.1%	(25.7%, 48.0%)	*	*	*		
Ambulatory Care	995	35.8%	(32.9%, 38.8%)	64	28.5%	(18.9%, 40.5%)		
Other Community Based Health Care	135	32.8%	(25.5%, 41.1%)	50	34.9%	(23.2%, 48.8%)		
Mobile and Home Care	151	26.9%	(20.5%, 34.5%)	26	18.7%	(8.2%, 37.3%)		
Non Clinical	308	23.2%	(18.8%, 28.2%)	18	24.5%	(10.4%, 47.6%)		
Other Community Based Care	83	23.1%	(15.3%, 33.2%)	*	*	*		

^a Respondents were instructed to mark all that apply.

* Data are suppressed if count is less than 10 or sample population was less than 20.

The position where nurses experienced the most workplace violence was among travel nurses for both RNs (65.3 percent) and for LPNs (62.5 percent; Table 35). RNs who experienced workplace violence were statistically more likely compared to LPNs to work as a staff nurse (53.6 percent vs. 33.6 percent).

Staff nurses reported they are planning to work five years or less at higher rates compared to other positions (22.1 percent; Table 26). Additionally, they are among one of the positions with the highest percentage of reported workplace violence experiences. Table 35. Nurses who Experienced Workplace Violence by Position, 2023 (top positions in descending order by RNs)^a

Desition		RN=	6,555	LPN= 432			
Position	n	Estimate	95% CI	n	Estimate	95% CI	
Travel Nurse	289	65.3%	(59.6%, 70.6%)	26	62.5%	(43.4%, 78.3%)	
Staff Nurse	3,413	53.6%	(51.9%, 55.3%)	261	33.6%	(28.1%, 39.5%)	
Managerial	492	44.8%	(40.5%, 49.2%)	38	25.9%	(14.7%, 41.6%)	
Faculty	179	37.3%	(30.6%, 44.6%)	*	*	*	
Military Health Services	20	36.7%	(19.4%, 58.3%)	*	*	*	
School Nurse	64	36.3%	(25.6%, 48.5%)	*	*	*	
Executives	246	36.1%	(30.4%, 42.3%)	10	31.0%	(11.3%, 61.2%)	
Education/ Research/ Consulting	383	35.6%	(31.0%, 40.5%)	*	*	*	
APRN or Anesthetist	451	34.9%	(30.6%, 39.4%)	0	0.0%	(0.0%, 0.0%)	
Patient Educator and other	306	33.7%	(28.6%, 39.2%)	27	27.6%	(14.4%, 46.4%)	
Telehealth	179	33.5%	(27.0%, 40.7%)	16	49.3%	(27.4%, 71.4%)	
Other Health Services	527	27.1%	(23.5%, 31.1%)	31	19.0%	(9.0%, 35.9%)	
Other health non- related	*	*	*	*	*	*	

^a Respondents were instructed to mark all that apply.

* Data are suppressed if count is less than 10 or sample population was less than 20.

The specialties where nurses experienced the most workplace violence for RNs was critical care (64.9 percent) while LPNs were in behavioral health (45.3 percent; Table 36). RNs who experienced workplace violence were statistically more likely than LPNs to have a specialty in critical care (64.9 percent vs. 19.4 percent), medical-surgical & wound care (60.8 percent vs. 39.0 percent), adult health (53.9 percent vs. 34.4 percent), and geriatric care (51.1 percent vs. 36.1 percent).

Table 36. Nurses who Experienced	<u>I Workplace Violence b</u>	by Specialty, 2023	(top specialties in
descending order by RNs) ^a			

Specialty		RN= 9,323			LPN= 738		
Specialty	n	Estimate	95% CI	n	Estimate	95% CI	
Critical Care	1,134	64.9%	(62.1%, 67.6%)	10	19.4%	(5.4%, 50.4%)	
Behavioral Health	494	63.3%	(59.0%, 67.4%)	35	45.3%	(30.1%, 61.4%)	
Medical Surgical & Wound Care	1,098	60.8%	(57.9%, 63.6%)	82	39.0%	(29.2%, 49.8%)	
Adult Health	1,226	53.9%	(51.1%, 56.7%)	129	34.4%	(26.8%, 42.9%)	
Specialty Care	829	53.3%	(49.9%, 56.7%)	18	30.3%	(14.2%, 53.3%)	
Geriatric Care	559	51.1%	(47.0%, 55.2%)	147	36.1%	(28.8%, 44.1%)	
Rehabilitation	230	50.9%	(44.5%, 57.3%)	63	35.7%	(25.0%, 48.0%)	
Hospice	257	50.4%	(44.3%, 56.5%)	39	43.5%	(29.2%, 58.9%)	
Phlebotomy Testing & Diagnostics	131	49.1%	(40.7%, 57.6%)	23	42.4%	(24.8%, 62.2%)	

Guacialtz		RN = 9	,323	LPN= 738			
Specialty	n	Estimate	95% CI	n	Estimate	95% CI	
Child & Family Health	559	43.4%	(39.4%, 47.5%)	50	26.8%	(16.5%, 40.4%)	
Occupational Health & Transitions of Care	221	47.0%	(40.5%, 53.6%)	16	32.2%	(14.8%, 56.5%)	
Dialysis Nurse	92	44.1%	(34.4%, 54.3%)	*	*	*	
Surgical Services	537	40.7%	(36.6%, 44.9%)	*	*	*	
Anesthesia	161	39.0%	(31.8%, 46.7%)	0	0.0%	(0.0%, 0.0%)	
Women & Infant Health	416	38.5%	(33.9%, 43.3%)	*	*	*	
Community Care	177	35.6%	(28.9%, 42.9%)	18	31.9%	(15.3%, 54.9%)	
Other specialty	527	34.7%	(30.8%, 38.9%)	54	30.0%	(19.4%, 43.2%)	
Academia	160	32.6%	(25.8%, 40.2%)	*	*	*	
Care management	448	29.7%	(25.7%, 34.1%)	22	24.6%	(11.3%, 45.4%)	
Other non-clinical specialties	67	25.0%	(16.2%, 36.5%)	*	*	*	

* Data are suppressed if count is less than 10 or sample population was less than 20.

Type of Violence & Perpetrator of Workplace Violence

Respondents to this year's survey continued to experience threats and verbal abuse at the highest rates of any type of violence. The age of nurses who experienced each type of workplace violence (threat, verbal abuse, sexual harassment, and physical violence) are shown in Figure 6 on the following page. Overall, younger nurses experienced higher rates of each type of violence except verbal abuse that was reported at higher rates across all ages (verbal abuse 92.5 percent to 97.5 percent). Due to suppression rules, data by licensure are not available when analyzing LPNs alone.

In addition to younger nurses having reported experiencing higher rates of most types of workplace violence, this group also reported higher rates of planning to work five years or less.

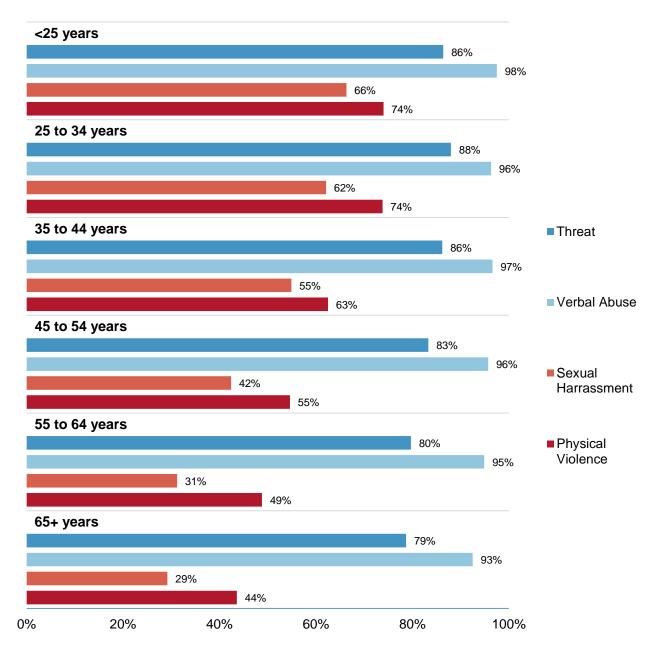


Figure 6. Type of Workplace Violence Nurses Experienced by Age for All Nurses, 2023

The frequency at which nurses experienced each type of workplace violence in the past year is in Figure 7 on the following page. Overall, RNs and LPNs follow similar trends in the frequency of which each type of violence was experienced. Verbal abuse was most frequently experienced (RNs = 48.5 percent; LPNs = 46.9 percent), with threats reported as the next most frequently experienced type of workplace violence (RNs = 24.8 percent; LPNs = 22.6 percent). Physical violence was most frequently experienced by 10.5 percent of RNs and 12.0 percent of LPNs. Sexual harassment was most frequently experienced by 6.1 percent of RNs and 6.2 percent of LPNs.

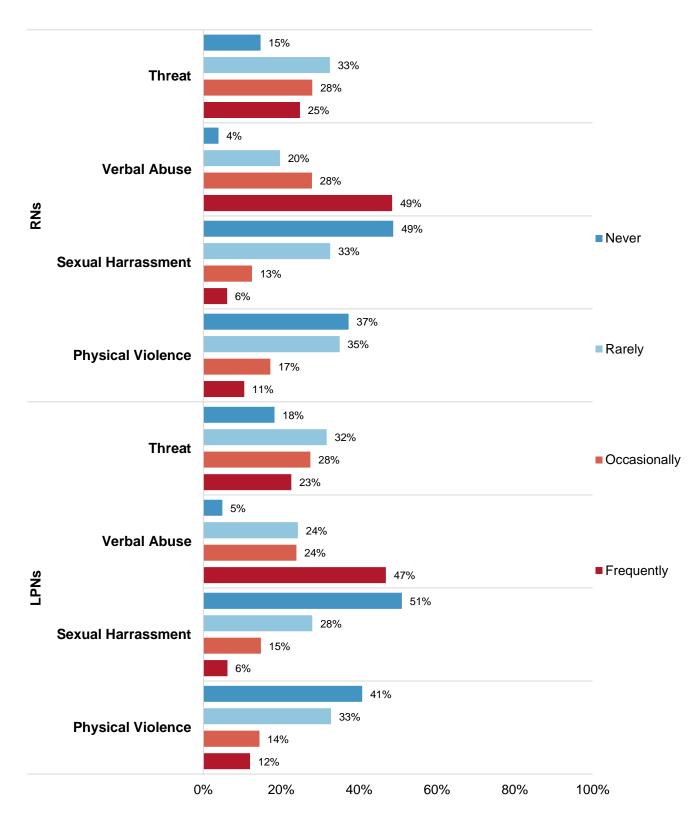


Figure 7. Frequency of Type of Workplace Violence, 2023

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The most common perpetrator of workplace violence continued to be the patient (RNs = 82.9 percent; LPNs = 79.1 percent) or family/friend of the patient (RNs = 22.5 percent; LPNs = 15.8 percent; Table 37 on the following page). RNs experienced workplace violence from peers (8.8 percent) and physicians (7.1 percent) as well. LPNs experienced workplace violence from peers (17.2 percent) and supervisors (11.1 percent). RNs were more likely to experience workplace violence from a patients' family member or friend (22.5 percent vs. 15.8 percent) and by physicians (7.1 percent vs. 3.5 percent) compared to LPNs. Conversely, LPNs were more likely to experience workplace violence from the following violence from a supervisor (11.1 percent vs. 5.2 percent) and by peers (17.2 percent vs. 8.8 percent) compared to RNs.

Table 37. Pe	rpetrator of	of Workp	lace Viole	nce, 2023 ^{a-b}
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Domotroton of M/DV	RN	= 5,067	LPN= 324		
Perpetrator of WPV	Estimate 95% CI		Estimate	95% CI	
Patient	82.9%	(81.8%, 83.9%)	79.1%	(74.3%, 83.2%)	
Family or Friend of Patient	22.5%	(21.4%, 23.7%)	15.8%	(12.2%, 20.2%)	
Supervisor	5.2%	(4.6%, 5.8%)	11.1%	(8.1%, 15.0%)	
Physician	7.1%	(6.4%, 7.8%)	3.5%	(2.0%, 6.1%)	
Peer	8.8%	(8.1%, 9.6%)	17.2%	(13.5%, 21.7%)	
Other	1.8%	(1.5%, 2.2%)	*	*	

^a Respondents were instructed to mark all that apply, but this feature was not working for this response option. ^b In previous years, respondents note about issues with survey programming in which it only allowed them to pick one response option

* Data are suppressed if count is less than 10 or sample population was less than 20.

The perpetrator of workplace violence was analyzed by the type of violence nurses experienced in Figure 8 on the following page. Patients were physically violent against nurses (RNs = 95.9 percent; LPNs = 93.9 percent) and threatened nurses (RNs = 74.6 percent; LPNs = 72.6 percent). RNs experienced verbal abuse from peers (5.7 percent) and physicians (5.4 percent). LPNs also experienced verbal abuse from family or friends of the patient (10.7 percent) and supervisors (9.5 percent).

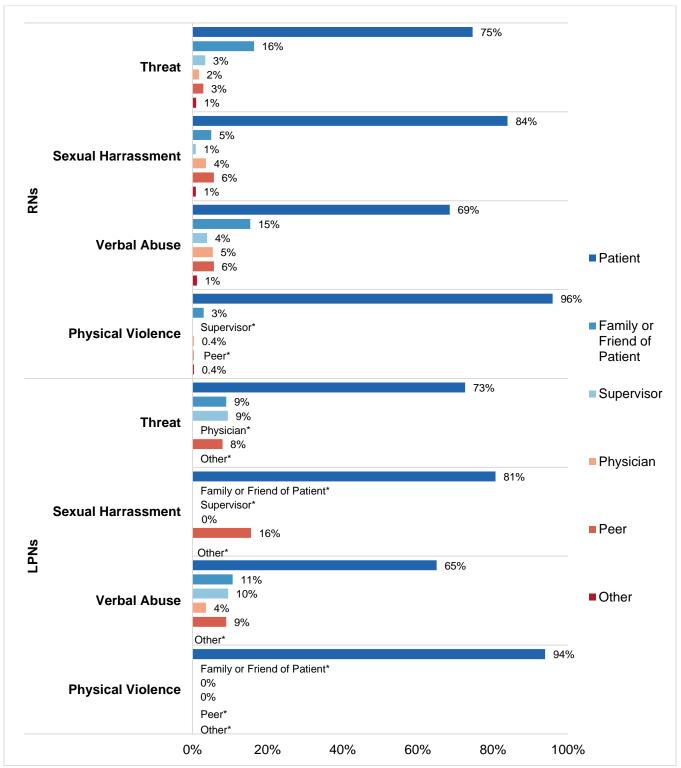


Figure 8. Perpetrator^a and Type of Violence Experienced by Nurses, 2023

^a In previous years, respondents note about issues with survey programming in which it only allowed them to pick one response option.

* Data are suppressed if count is less than 10 or sample population was less than 20.

Workplace Violence Reporting

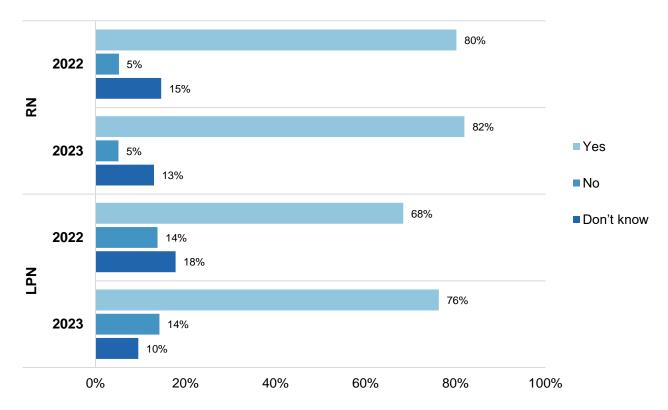
The knowledge of an organizational process to report workplace violence and if they reported the workplace violence incident(s) using this process is shown in Table 38. Public health nurses have shared that some of their organizations addressed workplace violence reporting during the safety or security training, and it is possible these individuals would respond "don't know." Most of both RNs and LPNs were aware of an organizational process for reporting workplace violence (82.0 percent and 76.3 percent, respectively); and most RNs and LPNs reported workplace violence using their organizational process (59.2 percent and 72.6 percent, respectively). RNs were statistically more likely to have knowledge of the organizational process for reporting workplace violence compared to LPNs (82.0 percent vs. 76.3 percent). However, LPNs were statistically more likely to have reported workplace violence compared to RNs (72.6 percent vs. 59.2 percent).

Reporting of	RN=	= 5,088	LPN= 326						
Workplace Violence	Estimate	95% CI	95% CI Estimate						
Knowledge of Organ	Knowledge of Organizational Process for Reporting Workplace Violence								
Yes	82.0%	(80.9%, 83.0%)	76.3%	(71.4%, 80.6%)					
No	5.1%	(4.5%, 5.7%)	14.2%	(10.8%, 18.4%)					
Don't Know	13.0%	(12.1%, 14.0%)	9.5%	(6.8%, 13.2%)					
Reported Workplace Violence Using Organizational Process									
Yes	59.2%	(57.7%, 60.7%)	72.6%	(66.8%, 77.8%)					

Table 38. Reporting of Workplace Violence Incidence, 2023

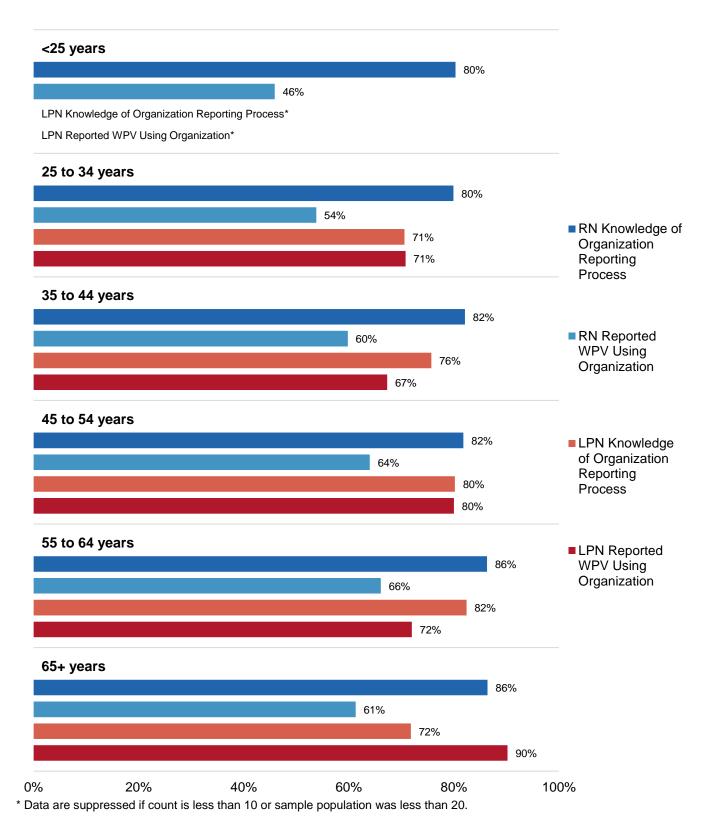
Nurses were also asked if they knew about an organizational reporting process of workplace violence incidents in 2020. In 2020, most nurses were required to report workplace violence incidents to their organization (86.0 percent, see 2020 report on <u>www.minurse.org</u>). Results are compared from this year and with the 2022 findings in Figure 9 on the following page. RNs and LPNs knowledge of reporting processes through their organization increased between this year and last year (RNs 2022 = 80.2 percent, RNs 2023 = 82.0 percent; LPNs 2022 = 68.4 percent, LPNs 2023 = 76.3 percent).

Figure 9. Knowledge of Reporting Process of Workplace Violence Incidents through Organization, 2022-2023



RNs tended to have more knowledge of their organization reporting process compared to LPNs across all age groups, with knowledge having generally increased with age for both RNs and LPNs (Figure 10 on the following page). RNs who reported workplace violence through their organization increased with age as well (45.9 percent to 66.1 percent). LPNs from 25 to 64 years old reported workplace violence at similar rates (67.3 percent to 90.2 percent).

Figure 10. Knowledge of Organizational Reporting Process & Use of WPV Reporting by Age, 2023



Nurses were asked which types of methods were used to report workplace violence incidences as shown in Figure 11. RNs and LPNs reported workplace violence to their supervisor or chief nurse at the highest levels (49.5 percent and 44.9 percent, respectively). 26.1 percent of RNs and 17.6 percent of LPNs did not report any workplace violence incidents.

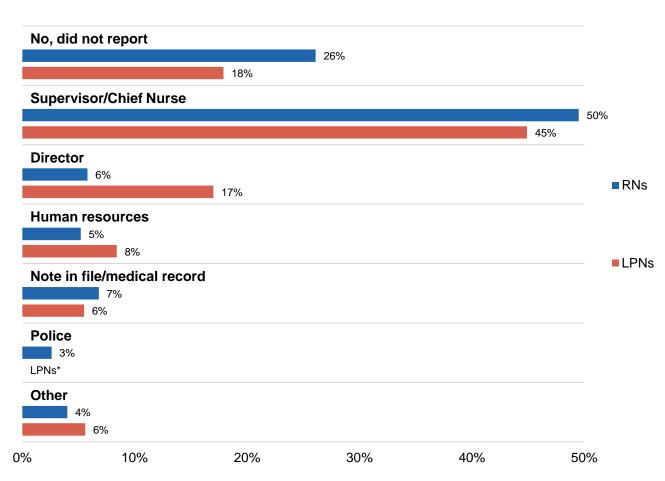


Figure 11. Methods of Reporting Workplace Violence Incidence, 2023

* Data are suppressed if count is less than 10 or sample population was less than 20.

Additional Information

For additional information related to the 2023 Survey of Michigan Nurses results, past years' reports, and data produced from Michigan's nurse licensure data, please visit <u>www.minurse.org</u>. For questions or comments related to the content presented in this report, please contact Christopher Wojcik, Associate Program Director, Michigan Public Health Institute (<u>cwojcik@mphi.org</u>).

The rest of the report includes Appendix A-C: Appendix A provides a copy of the 2023 Survey of Michigan Nurses and Appendix B provides additional regional analysis. Appendix C provides data from the LARA Nurse Licensure dataset from 2019 to 2023 that explores the movement of nurses within and outside of Michigan.

APPENDICES

Appendix A: 2023 Survey of Michigan Nurses Data Collection Tool

LICENSE TYPE

- 1. Are you a licensed practical nurse (LPN) or a registered nurse (RN) (mark ONE)? Note: If you are both an LPN and a RN, please select RN
 - a. LPN [Skip to #5]
 - b. RN

ADVANCED PRACTICE NURSE (APN) NATIONAL CERTIFICATION

- 2. Have you passed a national certification exam or completed portfolio review as an advanced practice nurse (APN) in one of these areas?
 - a. No, I have not. [Skip to #4]
 - b. Nurse Anesthetist
 - c. Nurse-Midwife
 - d. Nurse Practitioner
 - e. Clinical Nurse Specialist
- 3. Do you have a specialty certification by the Michigan Department of Licensing and Regulatory Affairs (LARA) in one of the three advanced practice registered nurse fields or as a nurse anesthetist recognized by the Michigan Public Health Code?
 - a. No, I do not have one.
 - b. Nurse Anesthetist
 - c. Nurse-Midwife
 - d. Nurse Practitioner
 - e. Clinical Nurse Specialist

EDUCATION

- 4. What type of nursing degree/credential qualified you for your first U.S. nursing license (mark ONE)?
 - a. LPN diploma/certificate
 - b. RN diploma in nursing
 - c. Associate degree in nursing
 - d. Bachelor's degree in nursing
 - e. Master's degree in nursing
- 5. What is your highest level of nursing education (mark ONE)?
 - a. LPN diploma/certificate
 - b. RN diploma in nursing
 - c. Associate degree in nursing
 - d. Bachelor's degree in nursing
 - e. Master's degree in nursing
 - f. Doctorate in Nursing Practice (DNP)
 - g. Doctor of Nurse Anesthesia (DNAP)

- h. Doctor of Philosophy in Nursing (PhD)
- i. Other doctoral degree in nursing
- 6. What is your highest level of non-nursing education (mark ONE)?
 - a. Non-nursing associate degree
 - b. Non-nursing bachelor's degree
 - c. Non-nursing master's degree
 - d. Non-nursing doctoral degree
 - e. Do not have a non-nursing degree
- 7. Are you currently enrolled in a program to obtain any of the following degrees (mark ALL that apply)?
 - a. No not enrolled [Skip to #10]
 - b. Associate Degree in Nursing (ADN) [Skip to #9]
 - c. Bachelor of Science in Nursing (BSN) [Skip to #9]
 - d. Master of Science in Nursing (MSN)
 - e. Doctor of Nursing Practice (DNP)
 - f. Doctor of Nurse Anesthesia (DNAP)
 - g. Doctor of Philosophy in Nursing (PhD) [Skip to #9]
- 8. You indicated you are enrolled in a program to obtain an MSN or DNP, which specialty certification is the program designed to prepare you for (mark ONE)?
 - a. Nurse Practitioner
 - b. Nurse-Midwife
 - c. Nurse Anesthetist
 - d. Clinical Nurse Specialist
 - e. Other
 - f. I am not enrolled in specialty certification.
- 9. What kind of program are you currently enrolled in?
 - a. In-person
 - b. Online
 - c. Hybrid

EMPLOYMENT

- 10. What is your current employment status (mark ONE)?
 - a. Actively employed in nursing or in a position that requires a nurse license full-time [Skip to #12]
 - b. Actively employed in nursing or a position that requires a nurse license part-time [Skip to #12]
 - c. Actively employed in nursing or in a position that requires a nurse license on a per-diem basis [Skip to #12]
 - d. On temporary medical leave from a position that requires a nurse license [Skip to #50]
 - e. On temporary non-medical leave from a position that requires a nurse license [Skip to #50]
 - f. Actively employed in a field other than nursing [Skip to #50
 - g. Volunteer nurse status only [Skip to #12]
 - h. Unemployed, seeking work as a nurse [Skip to #50]
 - i. Unemployed, not seeking work as a nurse [Skip to #50]
 - j. Permanent disability leave [Skip to #50]
 - k. Retired [Go to #11]

RETIRED NURSES

- 11. What best describes your retirement status (mark one)?
 - a. No longer wish to work [Skip to #50]

- b. Currently employed on a part-time basis in nursing [Skip to #12]
- c. Currently employed on a full-time basis in nursing [Skip to #12]
- d. Currently volunteering in nursing [Skip to #12
- e. Currently employed outside of nursing [Skip to #50]
- f. Permanent disability leave [Skip to #50]

VOLUNTEER & EMPLOYED NURSES

- 12. Have you temporarily returned to the nursing workforce after a period of not practicing?
 - a. No, I did not return to nursing as I was already practicing nursing
 - b. Yes, in a paid nursing position
 - c. Yes, in a volunteer nursing position

EMPLOYED NURSES

- 13. How many positions are you currently employed in as a nurse (mark ONE)?
 - a. One
 - b. Two
 - c. Three or more

14. How many hours do you work during a typical week in all of your nursing positions? _____

SETTING

- 15. Please identify the type of **setting** that most closely corresponds to your nursing practice position(s) (mark ALL that apply)?
 - a. <u>Acute Care</u> (i.e., hospital inpatient acute care, non-federal long-term hospital, non-federal psychiatric hospital, federal government hospital) [Skip to #19]
 - b. <u>Ambulatory Care</u> (i.e., adolescent, child, and university health services; outpatient specialty clinics; primary care offices, FQHCs; group practice/partnerships; dental practice) [Skip to #19]
 - c. <u>Ambulatory Surgery Center</u> [Skip to #19]
 - d. <u>Diagnostic/Testing Center (i.e., free-standing testing center)</u> [Skip to #19]
 - e. Emergent /Urgent Care Center i.e., free-standing urgent care [Skip to #19]
 - f. <u>Nursing Home/Extended Care</u> (i.e., long-term care; rehabilitation) [Skip to #19]
 - g. Assisted Living Facility [Skip to #19]
 - h. <u>Home Health</u> (i.e., health care provided in patient's home) [Skip to #19]
 - i. <u>Hospice</u> (i.e., in-home and facility based hospice care) [Skip to #19]
 - j. <u>Correctional Facility</u> (i.e., jail or prisons) [Skip to #19]
 - k. Mobile Care Unit [Skip to #19]
 - I. <u>School of Nursing</u> (i.e., college or university) [Skip to #19]
 - m. <u>Public Health</u> (i.e., state health dept; state mental health agency; city/county health dept) [Go to #16]
 - n. <u>Dialysis Center</u> [Skip to #19]
 - <u>Community Health</u> (i.e., volunteer/official nursing services; community mental health center; substance abuse; community health center; family planning center; day care; rural health center; faith-based) [Skip to #19]
 - p. <u>School Health Services K-12</u> (i.e., elementary, or secondary schools; board of education) [Skip to #19]
 - q. <u>Occupational Health</u> (i.e., private industry, government) [Skip to #19]
 - r. Insurance Claims/Benefits (i.e., insurance company) [Skip to #19]
 - s. <u>Policy/Planning/Regulatory/Licensing Agency</u> (i.e., central/regional office of federal agency; state board of nursing; health planning agency; nurse workforce center) [Skip to #19]

- t. <u>Other Community-based Healthcare Settings</u> [Skip to #19]
- u. Other Community-based Service Organizations [Skip to #19]
- v. <u>Other Community Settings not providing direct care or social services</u> (i.e., utilization review organization, healthcare support agencies, quality improvement) [Skip to #19]
- w. Other [Skip to #19]

PUBLIC HEALTH NURSES ONLY

16. Please identify the role that most closely corresponds to your experience in Public Health (mark ALL that

apply).

- a. Academia
- b. Home visiting
- c. Communicable disease
- d. COVID-19 temporary position
- e. Administrative
- f. Community Service programs
- g. Health Education
- 17. Did you move from another position within public health to address COVID-19?
 - a. Yes
 - b. No
- 18. Do you have a clinical position (mark ALL that apply)?
 - a. Yes, standard immunizations
 - b. Yes, COVID-19 vaccine and testing
 - c. Yes, STDs/HIV/TB
 - d. No

DIRECT CARE

- 19. In any of your positions, do you provide direct care services?
 - a. Yes
 - b. No [Skip to #21]
- 20. How many hours are spent providing direct care services to patients/families during a typical week?

POSITION/ROLE

- 21. Please identify the **position title or role** that most closely corresponds to your nursing position(s) (mark ALL that apply).
 - a. <u>Staff Nurse</u> (i.e., nurse in direct patient care who is responsible for the treatment and well-being of patients) [Skip to #30]
 - <u>Nurse Manager/Supervisor</u> (i.e., individual who has line management position with 24-hour accountability for a designated patient care services which may include operational responsibility for patient care delivery, fiscal and quality outcomes) [Skip to #32]
 - c. <u>Nurse Executive/Administrator</u> (involved with management and administration concerns. They provide leadership roles in operational planning, development of procedures and policies, personnel decisions, and administration of budgets in health delivery, academic and community service settings. [Skip to #32]
 - d. <u>Nurse Consultant</u> (A professional who provides advice or expertise in the field of nursing regarding such issues as nursing education, nurse staffing, nurse policy, etc.) [Skip to #32]
 - e. <u>Nurse Secondary Educator</u> (i.e., provide nursing education in faculty roles for early middle college and high school vocational tech programs) [Go to #22]

- f. <u>Nurse Post-Secondary Educator</u> (i.e., provide education in faculty roles to undergraduate and graduate student nurses) [Go to #22]
- g. <u>Professional Nurse Training</u> (i.e., nurse education of already licensed nurses in non-degree setting, non-degree courses) [Skip to #32]
- h. Patient Educator (i.e., provide education to patients, members of the community) [Skip to #32]
- i. <u>School Health Nurse K-12</u> [Skip to #32]
- j. <u>Advanced Practice Registered Nurse or Nurse Anesthetist</u> (i.e., obtained state of Michigan certification to practice as an APRN in one of the three APRN roles: certified nurse-midwife (CNM), clinical nurse specialist (CNS), or certified nurse practitioner (CNP), or certified registered nurse anesthetist (CRNA).) [Skip to #32]
- k. Faith-based Nurse [Go to #32]
- I. <u>Case Manager/Coordinator/Navigator</u> (i.e., collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual's and family's comprehensive health needs through communication and available resources to promote quality cost-effective outcomes) [Skip to #32]
- Murse Researcher (i.e., role and/or title is to conduct research in the field of nursing) [Skip to #32]
- n. <u>Reserve or Active Military</u> [Go to #25]
- o. <u>Non-military, work in Military</u> setting (i.e., veteran's hospital) [Go to #27]
- p. <u>Telehealth</u> [Skip to #32]
- q. <u>Travel nurse</u> [Skip to #29]
- r. Other Health Related [Skip to #32]
- s. Other Health Non-related [Skip to #32]
- t. Other [Skip to #32]

FACULTY NURSES

- 22. You've indicated you're working as faculty, is this a part or full time role?
 - a. Part time role
 - b. Full time role
 - c. Other, please specify.
- 23. How many hours per week do you spend working as faculty?____
- 24. [FACULTY ONLY] Have you made any of the changes in employment in the past year (mark ALL that apply)?
 - a. I have not made any changes in employment in the past year.
 - b. From admin to faculty
 - c. From direct care to faculty
 - d. From part time to full time]
 - e. From full time to part time

Reserve & Active Military

- 25. You indicated you're working as a reserve or active military nurse, is this a part or full time role?
 - a. Part time role
 - b. Full time role
 - c. Other, please specify.

26. How many hours per week do you spend working as a reserve or active military nurse?_____

NON -MILITARY NURSE

- 27. You've indicated you're working as a non-military nurse, is this a part or full time role?
 - a. Part time role
 - b. Full time role
 - c. Other, please specify.

28. How many hours per week do you spend working as a non-military nurse?_____

TRAVEL NURSE

29. [You indicated you're a travel nurse, do you spend most of your time working as a nurse in Michigan?

- a. Yes
- b. No

STAFF NURSE

- 30. You indicated you're a staff nurse, do you serve as a preceptor in any of these roles?
 - a. Precept new nurses within my organization
 - b. Precept students
 - c. I do not serve as a preceptor [Skip to #32]
 - d. Other, please specify
- 31. Do you receive extra or separate payment for your precepting roles?
 - a. Yes
 - b. No

SPECIALTY

- 32. Please identify the **employment specialty** that most closely corresponds to your nursing practice position(s) (mark ALL that apply).
 - a. <u>Critical Care</u> (i.e., Critical care nurses deal specifically with human responses to life threatening problems)
 - b. <u>Emergency/Trauma/Urgent Care</u> (i.e., provide emergency care to patients of all ages. These nurses work to maintain vital signs and prevent complications and death.)
 - c. Adult Health (i.e., provision of nursing care to adult patients,)
 - d. Family Health (i.e., meet the healthcare needs of the individual and family
 - e. <u>Anesthesia</u> (i.e., provide anesthesia and anesthesia-related care or management of pain)
 - f. <u>Cardiology</u> (i.e., provide nursing care and treatment for individuals with diagnosed or suspected heart diseases and conditions)
 - g. Case Management/Care Coordination
 - h. <u>Community Care</u> (i.e., delivery of nursing care to improve the health of an entire community; use of the nursing process and other processes to promote health and prevent illness in population groups in employment settings other than a public health department.)
 - i. <u>Health Informatics (i.e., applies principles of computer and information science to the advancement of life sciences research, health professions education, public health, and patient care. This multidisciplinary and integrative field focuses on health information technologies (HIT), and involves the computer, cognitive, and social sciences. Informatics is the science of how to use data, information, and knowledge to improve human health and the delivery of health care services.)</u>
 - j. Dialysis Nurse
 - k. Discharge Planning/Transitions of Care
 - I. Flight Nurse

- m. <u>Geriatric/Gerontology</u> (i.e., nursing care of the elderly.)
- n. <u>Hematology/Oncology</u> (i.e., provide nursing care and support for patients suspected of having or diagnosed with cancer.)
- o. <u>Maternal-child Health/Obstetrics</u> (i.e., provide medical and surgical treatment to pregnant women and to mother and baby following delivery)
- p. <u>Medical-Surgical</u> (i.e., provide diagnostic and therapeutic services to acutely ill patients for a variety of medical conditions, both surgical and non-surgical)
- q. <u>Nephrology/Renal</u> (providing nursing care and treatment of individuals with diagnosed or suspected kidney disease)
- r. <u>Nursing Academic Services/Non-Faculty (i.e., simulation specialist, clinical placement</u> coordinator, skills remediation, program coordinator/advisor, etc.)
- s. <u>Nursing Faculty</u> (i.e., clinical and/or didactic faculty role at a college of nursing)
- t. <u>Occupational Health</u> (i.e., provide on-the-job health care for the nation's workforce, striving to ensure workers' health, safety, and productivity)
- u. Operating Room/Scrub Nurse
- v. Palliative Care/Hospice
- w. Pediatrics
- x. <u>Neonatal</u>
- y. Phlebotomy
- <u>Pre-op/Post-op Recovery Room</u> (i.e., provision of nursing care to patients in the period immediately prior to performance or immediately following an interventional or surgical procedure)
- aa. <u>Public Health</u> (i.e., promoting and protecting the health of populations using knowledge from nursing, social, and public health sciences. Public health nursing practice focuses on population health, with the goal of promoting health, and preventing disease and disability)
- bb. <u>Psychiatric/Mental Health/Substance Abuse</u> (i.e., aid and support the mental health of patients with acute or chronic psychiatric needs; pain management nurses who help regulate medications and provide care for those addicted to drugs or alcohol, or who are suffering from other types of substance abuse.)
- cc. <u>Rehabilitation</u> (i.e., provide physical and emotional support to patients and the families of patients with illnesses or disabilities that affect their ability to function normally and that may alter their lifestyle.)
- dd. <u>School Health K-12</u> (i.e., dedicated to promoting the health and well-being of children of all ages in an academic environment.)
- ee. Telehealth
- ff. Testing and Diagnostic Services Nurse
- gg. Thoracic Care (i.e., patients receiving heart and pulmonary surgery)
- hh. <u>Women's Health</u> (i.e., provided care for women across the life cycle with emphasis on conditions that are particular to women)
- ii. Wound Care
- jj. <u>Other Medical</u> (i.e., dermatology, diabetic, allergy/immunology, infectious disease/ infection nurse, etc.)
- kk. Other Clinical Specialties
- II. Other Non-clinical Specialties
- mm. <u>Other</u>

EMPLOYER SUPPORTS

33. Does your employer offer any of the following (mark ALL that apply)?

- a. Tuition reimbursement
- b. Paid time off for advancing nursing education
- c. Paid time off for continuing education courses
- d. Reimbursement for continuing education
- e. Reimbursement for costs associated with obtaining advanced certification
- f. Student loan repayment benefits
- g. Nurse residency/Transitions to practice programs
- h. Mentorship
- i. None of the above

CHANGE IN EMPLOYMENT SETTING

- 34. If you made a change in your employment setting within the past three years, what was the change (mark ALL that apply)?
 - a. I did not make an employment change in the past three years [Skip to #36]
 - b. An inpatient setting to a community-based setting
 - c. A community-based setting to an inpatient setting
 - d. A primary care setting (e.g., family practice, general medicine, internal medicine, or general pediatrics) to a specialty care setting
 - e. A specialty care setting to a primary care setting
 - f. A sub-acute care setting to an acute care setting
 - g. An acute care setting to a sub-acute care setting
 - h. A direct patient care setting to a non-direct patient care setting
 - i. A non-direct patient care setting to a direct patient care setting
 - j. I changed locations but stayed in the same care setting
 - k. I made some other type of employment change
- 35. You indicated you made a change in your employment setting, please specify the reason (mark ALL that apply)?
 - a. Preparing to Retire
 - b. Care for home or family
 - c. Completed educational program
 - d. Changing to preferred nursing position
 - e. Seeking a less stressful position or setting
 - f. Difficulties with EMR/modern technology
 - g. Violence/safety issues
 - h. Relocating/Moving to another area
 - i. COVID-related
 - j. Temporary disability or long-term illness
 - k. Permanent disability leave
 - I. Wages
 - m. Work culture
 - n. Workload
 - o. Better schedule
 - p. Benefits and employer supports
 - q. Other (please specify)

TIME PRACTICING AS A NURSE

- 36. In total, how long have you been employed as a practicing nurse (mark ONE)?
 - a. Less than 3 years

- b. 3 to less than 6 years [Skip to #45]
- c. 6 to less than 10 years [Skip to #45]
- d. 10 years to less than 20 years [Skip to #45]
- e. 20 years or more [Skip to #45]

NEW NURSES ONLY [< 3 YEARS]

- 37. How prepared did you feel when you entered the nursing workforce (mark ALL that apply)?
 - a. Adequately prepared
 - b. Not enough classroom time
 - c. Not enough clinical time
 - d. Not enough skills lab/simulation time
 - e. Not enough critical thinking/prioritization practice
 - f. Other (please specify)
- 38. How difficult was it to find a nursing position?
 - a. Very difficult
 - b. Difficult
 - c. Neutral
 - d. Easy
 - e. Very easy
- 39. How difficult was it to find a nursing position in your preferred practice area?
 - a. Very difficult
 - b. Difficult
 - c. Neutral
 - d. Easy
 - e. Very easy
- 40. Did you complete a nursing residency?
 - a. Yes
 - b. No
- 41. How satisfied were you with the orientation at your place of employment?
 - a. Very dissatisfied
 - b. Dissatisfied
 - c. Neutral
 - d. Satisfied
 - e. Very satisfied
- 42. Did you have exposure to nursing during middle or high school?
 - a. Yes, programs completed in middle or high school to explore career in nursing
 - b. Yes, program completed in middle or high school to build academic skills related to nursing
 - c. No
 - d. Other (please specify)
- 43. Which characteristics did your nursing program have (mark ALL that apply)?
 - Holistic admissions (i.e., university admissions strategy that assesses an applicant's unique experiences alongside traditional measures of academic achievement such as grades and test scores)
 - b. Public
 - c. Private
 - d. For profit institutions
 - e. Online
 - f. In-person

- g. Hybrid online and in-person program
- h. Full-time program
- i. Part-time program
- j. Accelerated graduation date due to COVID
- k. Reduced in-person clinical experience due to COVID
- 44. What supports were available in your nursing program (Mark ALL that apply)?
 - a. Academic supports available (i.e., tutoring, peer tutoring, formal study groups, etc.)
 - b. Supports available to navigate college experience
 - c. English as a second language supports available
 - d. Mentorship
 - e. Scholarship
 - f. Work study
 - g. Student loans
 - h. Other (please specify)

PLANS TO CONTINUE WORKING AS A NURSE

- 45. To assist us in projecting the supply of nurses in the future, please tell us how much longer you plan to practice nursing (mark ONE).
 - a. Less than 2 years
 - b. 2 to 5 years
 - c. 6 to 10 years [Skip to #47]
 - d. More than 10 years [Skip to #47]
 - e. Don't know [Skip to #47]
- 46. Why are you planning on leaving nursing (mark ALL that apply)?
 - a. Retiring
 - b. Care for home or family
 - c. Enrolled in education program
 - d. Difficulty finding a nursing position
 - e. Too stressful/ Burned out
 - f. Difficulties with EMR/new technology
 - g. Violence/safety issues
 - h. Relocating/Moving to another area
 - i. COVID-related
 - j. Temporary disability or long-term illness
 - k. Permanent disability leave
 - I. Wages
 - m. Work culture
 - n. Workload
 - o. Undesirable schedule
 - p. Benefits and employer supports
 - q. Other (please specify)

PLACE OF EMPLOYMENT

47. Where is your primary place location of employment (mark ONE)?

- a. Michigan
- b. Other state in the U.S. [Skip to #49]
- c. Canada [Skip to #49]
- d. Other nation [Skip to #49]

- 48. What is the ZIP Code of your primary place of employment? _____ [Skip to #50]
- 49. Why is your primary place location of employment not in Michigan (mark ALL that apply)?
 - a. Living out of state
 - b. Semi-retired
 - c. Taking care of home and family
 - d. Better pay/wages/benefits
 - e. Better staffing/patient care ratios
 - f. School
 - g. Difficulty finding a nursing position
 - h. Scope of practice regulation is more favorable outside of Michigan
 - i. Travel nurse
 - j. Remote work such as online teaching, telehealth, or call centers
 - k. Military
 - I. Other (please specify)

DEMOGRAPHICS

50. Where is your primary place of residence (mark ONE)?

- a. Michigan
- b. Other state in the U.S. [Skip to #52]
- c. Canada [Skip to #52]
- d. Other nation [Skip to #52]

51. What is the ZIP Code of your primary place of residence? _____

- 52. In what year were you born? _
- 53. What is your gender (mark ONE)?
 - a. Female
 - b. Male
 - c. Gender non-binary/non-conforming, Genderqueer, Transgender*
 - d. Prefer not to respond

*These options have been combined for the purpose of increasing the likelihood of having enough responses to be included in the analysis. Should the number be high enough, we will revisit separating the options out in future surveys.

- 54. Are you Hispanic or Latinx?
 - a. Yes
 - b. No
- 55. Are you Arabic, Chaldean, or of other Middle Eastern decent?
 - a. Yes
 - b. No
- 56. What is your race (mark ALL that apply)?
 - a. White
 - b. Black or African American
 - c. American Indian or Alaska Native
 - d. Asian
 - e. Native Hawaiian or Pacific Islander
 - f. Other

WORKPLACE VIOLENCE QUESTIONS

The following questions ask you about your experiences with workplace violence. Violence in the workplace has become a serious concern for nurses because they have the highest risk among health professionals to become victims due to having the most interaction with patients. For the purpose of this survey, workplace violence is defined as the intentional use of physical force or emotional abuse, against an employee, that results in physical or emotional injury or consequences. This includes physical assault, threat, sexual harassment, and verbal abuse, which are defined as follows:

Threat - the use of words, gestures, or actions with the intent of intimidating, frightening, or harming (physically or otherwise).

Sexual harassment - any type of unwelcome sexual behavior (words or actions) that creates a hostile work environment.

Verbal abuse - when another person yells or swears at you, calls you names, or uses other words intended to control or hurt you.

Physical violence - when you are hit, slapped, kicked, pushed, choked, grabbed, sexually assaulted, or otherwise subjected to physical contact intended to injure or harm you.

Your responses are confidential and optional. All reporting will be in aggregate form.

- 57. In the past year, did you experience any workplace violence?
 - a. Yes
 - b. No [Skip to #64]
 - c. Prefer not to answer [Skip to #64]

58. How often did you experience these types of workplace violence?

	Never	Rarely	Occasionally	Frequently
	0 times	1-3 times per year	4-8 times per year	9 or more times per
				year
Threat				
Sexual harassment				
Verbal abuse				
Physical violence				

59. Who was responsible for the workplace violence against you? (Mark ALL that apply.)

	Patient	Family or Friend of Patient	Supervisor	Physician	Peer	Other	Not experienced
Threat							
Sexual harassment							
Verbal abuse							
Physical violence							

60. Have you missed any days of work as a result of the most recent workplace violence event?

a. Yes

- b. No
- 61. Is there a process for you to report workplace violence incidents through your organization?

- a. Yes
- b. No [Skip to #63]
- c. Don't know [Skip to #63]
- 62. Did you report workplace violence incidents using the organizational process?
 - d. Yes
 - e. No
- 63. Did you report or make any of the following aware of workplace violence incidents?
 - f. No, did not report
 - g. Supervisor/Chief Nurse
 - h. Director
 - i. Human resources
 - j. Note in file/medical record
 - k. Police
 - I. Other (please specify)

END OF SURVEY

64. If you would like to be notified when the survey report has been published, please provide your email address below. If you would not like to be notified, leave it blank.

Appendix B: Region Level Data

To further explore the state of the nursing workforce in the coming years, employment status, plans to leave the nursing workforce within the next five years, reasons for leaving nursing, preparedness for their nursing position, difficulty finding a position and satisfaction with orientation at place of employment were analyzed, where possible, for the years 2019, 2021, and 2023 by prosperity region. The purpose of this was to determine if there were specific regions of Michigan that are being disproportionately affected by changes in the nursing workforce.

Due to a high level of suppression, some data are not included in the following tables; however, general trends are discussed below:

- 1. Current Employment Status: 2019
 - a. South Central Michigan had the highest percentage of LPNs who indicated they were unemployed and actively seeking work as a nurse, but this was only significantly greater compared to West/West Central Michigan.
 - b. Northwestern Lower Peninsula (NW LP) had the highest percentage of LPNs who indicated they were unemployed and not seeking work as a nurse and those who were retired, but this was not significantly greater compared to other regions.
- 2. Current Employment Status: 2021
 - a. Northeastern LP (NE LP) had the largest percentage of LPNs who were not currently employed as a nurse full time, who were unemployed and not seeking work as a nurse, who were unemployed and seeking work as a nurse, and those who were retired.
 - i. Retired was the only employment status that was significantly greater compared to all other regions.
 - b. The Upper Peninsula (UP) had the largest percentage of LPNs who were employed in a field other than nursing.
- 3. Current Employment Status: 2023
 - a. South Central Michigan had the lowest percentage of LPNs actively employed in nursing full time and the highest percentage of LPNs unemployed and not seeking work as a nurse, which was significantly greater compared to six of the 10 regions.
 - b. The UP and NW LP had the largest percentage of LPNs actively employed in nonnursing fields, but this was not significantly greater than other regions.
 - c. NE LP had the largest percentage of LPNs who were retired, but this was not significant compared to other regions.
- 4. Reason employment is outside of Michigan, 2023
 - a. Among RNs and across all regions, better pay was indicated to be the most common reason nurses were not employed as a nurse in Michigan, and the highest was in Eastern Michigan.
 - i. This may be associated with the largest percentage of travel nurses having indicated residence in Eastern Michigan.
 - b. RNs in Southeastern Michigan indicated that they were living out of state, which was significantly greater compared to three of the 10 regions.
 - c. RNs in the UP and Southwestern Michigan indicated they were not working in Michigan because they had difficulties finding a position.

- d. LPNs did not have enough responses to determine if there were any trends present.
- 5. Reason for Leaving Nursing, 2023
 - a. RNs
 - i. Across all regions, retirement was the main reason nurses were leaving the workforce, followed by being too stressed/burned out.
 - ii. RNs in Detroit Metro were statistically more likely compared to five of the 10 regions to report having experienced some form of violence in the workforce.
 - iii. RNs in the NW LP were statistically more likely compared to six of the 10 regions to indicate wages, and statistically more likely compared to four regions to indicate benefits/employer supports, as the reason they are leaving the workforce.
 - iv. RNs in East Central Michigan were statistically more likely compared to four of the ten regions to indicate an undesirable schedule as the reason they are leaving the workforce.
 - b. LPNs
 - i. Across all regions, retirement was the main reason nurses were leaving the workforce, followed by being too stressed/burned out.
 - 1. Detroit Metro had the lowest percentage of those retiring but had the highest percentage of those who were too stressed/burned out.
 - ii. There were no other significant differences found in this group.
- 6. New Nurse Experience
 - a. Adequate preparedness
 - i. Among LPNs, there was an overall decrease in feeling adequately prepared for the workforce since 2019.
 - 1. The largest increase was in NE LP and the largest decrease was in Southeastern Michigan.
 - b. Orientation with place of employment
 - i. Overall, RNs had a decrease in satisfaction with their orientation program.
 - 1. West/West Central Michigan had the largest decrease in satisfaction with orientation, followed by Southwestern Michigan.
 - ii. LPNs, however, had an overall increase in satisfaction with their orientation program.
 - 1. The largest increase in satisfaction was in NW LP, while the largest decrease in satisfaction was in Southeastern Michigan.
 - c. Finding a nursing position
 - i. RNs had an overall decrease in difficulty finding a nursing position, except for Northeastern LP which was not significant.
 - 1. The largest decrease in difficulty was in Western Michigan, while the largest increase in difficulty was in the UP.
 - ii. Most LPNs indicated they had no difficulty finding a position; however, the largest increase was in Western Michigan, while the largest decrease was in NE LP.
 - iii. RNs also had an overall decrease in difficulty finding a nursing position in their preferred area.
 - 1. The largest increase in difficulty was in Southeastern Michigan, while the largest decrease in difficulty was in South Central Michigan.

- iv. Among LPNs, across most regions, there were no nurses who indicated that it was difficult to find a nursing position in their preferred area.
 - 1. The largest increase in difficulty was in Southwestern Michigan, while the largest decrease in difficulty was in NW LP.

Table 39 on the following page explores the current employment status of RNs in Michigan in 2019. Across all regions, most RNs were currently employed as a nurse full time, but Northwest LP had the lowest percentage (58.4 percent), which was significantly less than the region that had the highest percentage which was in East Central Michigan (70.4 percent). The highest percentage of part-time nurses was in West/West Central Michigan (18.4 percent), which was significantly greater when compared to all other regions. There were no significant differences in RNs who were unemployed and seeking work or among RNs who were unemployed and not seeking work. West/West Central had the smallest percentage of RNs who were retired (7.4 percent), which was significantly less than five of the 11 regions.

	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
Actively employed in	211	322	151	1,435	470	690	358	583	886	2,799
nursing or in a position that requires a	63.1%	58.4%	65.5%	61.8%	70.4%	68.7%	65.6%	64.6%	62.4%	63.8%
nurse license full-time	(57.9%, 68.0%)	(54.4%, 62.3%)	(59.3%, 71.2%)	(59.8%, 63.7%)	(66.9%, 73.7%)	(65.8%, 71.4%)	(61.6%, 69.4%)	(61.5%, 67.6%)	(59.9%, 64.8%)	(62.4%, 65.2%)
Actively employed in	44	64	17	433	54	113	66	96	186	559
nursing or a position that requires a	13.4%	10.4%	6.6%	18.4%	8.1%	10.5%	11.0%	10.7%	12.5%	12.4%
nurse license part-time	(10.2%, 17.4%)	(8.2%, 13.1%)	(4.1%, 10.4%)	(16.9%, 20.0%)	(6.3%, 10.4%)	(8.8%, 12.5%)	(8.7%, 13.8%)	(8.9%, 12.9%)	(10.9%, 14.3%)	(11.5%, 13.4%)
Actively employed in nursing or in a	*	33	12	100	28	45	39	38	64	267
position that requires a	*	5.6%	4.8%	4.2%	3.8%	4.2%	6.5%	4.1%	4.4%	6.0%
nurse license on a per-diem basis	*	(4.0%, 7.8%)	(2.7%, 8.3%)	(3.5%, 5.1%)	(2.6%, 5.5%)	(3.1%, 5.6%)	(4.8%, 8.8%)	(3.0%, 5.6%)	(3.5%, 5.6%)	(5.3%, 6.7%)
On temporary	*	*	0	14	*	*	*	*	14	37
medical leave from a position	*	*	0.0%	0.6%	*	*	*	*	0.9%	0.9%
that requires a nurse license	*	*	(0.0%, 1.6%)	(0.4%, 1.0%)	*	*	*	*	(0.5%, 1.5%)	(0.7%, 1.2%)

Table 39. Current Employment Status for RNs by Region, 2019

	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
On temporary non-medical	0	*	0	*	*	*	*	*	*	*
leave from a position that	0.0%	*	0.0%	*	*	*	*	*	*	*
requires a nurse license	(0.0%, 1.1%)	*	(0.0%, 1.6%)	*	*	*	*	*	*	*
Actively	17	23	*	63	*	23	13	32	57	96
employed in a	4.7%	4.1%	*	2.5%	*	2.2%	2.3%	3.2%	3.9%	2.1%
field other than nursing	(2.9%, 7.5%)	(2.8%, 6.0%)	*	(1.9%, 3.2%)	*	(1.5%, 3.3%)	(1.4%, 3.9%)	(2.2%, 4.5%)	(3.0%, 5.0%)	(1.7%, 2.6%)
	*	*	*	24	*	*	*	13	13	51
Volunteer nurse status	*	*	*	0.9%	*	*	*	1.3%	0.8%	1.0%
only	*	*	*	(0.6%, 1.4%)	*	*	*	(0.7%, 2.3%)	(0.5%, 1.4%)	(0.7%, 1.3%)
	*	14	*	29	12	14	*	21	22	86
Unemployed, seeking work	*	2.0%	*	1.2%	1.8%	1.2%	*	2.2%	1.5%	1.8%
as a nurse	*	(1.1%, 3.5%)	*	(0.8%, 1.7%)	(1.0%, 3.1%)	(0.7%, 2.1%)	*	(1.4%, 3.4%)	(1.0%, 2.3%)	(1.5%, 2.2%)
Unemployed,	11	14	*	62	10	19	18	27	40	104
not seeking	3.4%	2.5%	*	2.7%	1.5%	2.0%	3.4%	2.9%	2.8%	2.4%
work as a nurse	(1.9%, 5.9%)	(1.5%, 4.1%)	*	(2.1%, 3.4%)	(0.8%, 2.7%)	(1.3%, 3.0%)	(2.2%, 5.2%)	(2.0%, 4.2%)	(2.1%, 3.8%)	(2.0%, 2.9%)
Retired	43	101	37	222	93	127	68	109	187	522
Relieu	10.0%	14.7%	13.1%	7.4%	11.0%	9.7%	9.6%	9.8%	10.4%	9.4%

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	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	N	Ν	N	N	N	N	N	N	N	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
	(7.3%, 13.6%)	(12.1%, 17.8%)	(9.4%, 17.9%)	(6.4%, 8.5%)	8.9%, 13.6%)	(8.1%, 11.6%)	(7.4%, 12.3%)	(8.0%, 11.9%)	(8.9%, 12.1%)	(8.6%, 10.3%)

Table 40 explored the current employment status among RNs in 2021. Just like in 2019, most RNs were actively employed full time (60.1 percent to 65.9 percent), with no significant differences between regions. Part-time RNs were most likely to be in West/West Central Michigan (16.5 percent), which was significantly greater compared to all other regions. There were no significant differences among RNs who were working in non-nursing fields by region; however, the UP had the highest percentage (3.6 percent). There were also no significant differences among RNs who were unemployed and seeking work based on region. RNs who were unemployed and not seeking work were most likely to be in West/West Central Michigan, which was significantly greater than four of the 11 counties. The region with the highest percentage of RNs who were retired was in the Northeastern LP, which was significantly greater than all other regions in Michigan.

	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
Actively employed in	497	652	272	2,556	889	1,389	726	1,184	1,860	5,675
nursing or in a position that requires a	65.0%	61.1%	60.1%	60.4%	67.1%	65.9%	65.0%	65.8%	62.1%	63.2%
nurse license full-time	(61.7%, 68.2%)	(58.3%, 63.8%)	(55.8%, 64.2%)	(59.0%, 61.8%)	(64.6%, 69.5%)	(63.9%, 67.8%)	(62.3%, 67.6%)	(63.7%, 67.9%)	(60.4%, 63.7%)	(62.2%, 64.2%)

Table 40. Current Employment Status for RNs by Region, 2021

	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
Actively employed in	75	117	29	756	108	216	107	208	385	1,030
nursing or a position that requires a	9.3%	9.4%	5.3%	16.5%	7.7%	9.6%	9.0%	10.8%	11.7%	10.6%
nurse license part-time	(7.5%, 11.5%)	(7.9%, 11.2%)	(3.7%, 7.6%)	(15.5%, 17.6%)	(6.4%, 9.2%)	(8.5%, 10.9%)	(7.5%, 10.7%)	(9.5%, 12.3%)	(10.6%, 12.8%)	(10.0%, 11.2%)
Actively employed in nursing or in a	27	68	25	180	70	109	76	95	161	606
position that requires a	2.9%	5.0%	4.7%	3.7%	4.9%	4.8%	6.0%	4.5%	5.0%	6.2%
nurse license on a per-diem basis	(2.0%, 4.3%)	(3.9%, 6.4%)	(3.2%, 6.9%)	(3.2%, 4.3%)	(3.9%, 6.1%)	(4.0%, 5.8%)	(4.8%, 7.5%)	(3.7%, 5.5%)	(4.3%, 5.8%)	(5.7%, 6.7%)
On temporary	*	*	*	33	16	27	*	17	26	124
medical leave from a position	*	*	*	0.7%	1.0%	1.2%	*	0.9%	0.8%	1.3%
that requires a nurse license	*	*	*	(0.5%, 1.0%)	(0.6%, 1.7%)	(0.8%, 1.7%)	*	(0.6%, 1.4%)	(0.5%, 1.2%)	(1.1%, 1.5%)
On temporary non-medical	*	*	0	14	*	10	*	*	*	42
leave from a position that	*	*	0.0%	0.2%	*	0.4%	*	*	*	0.4%
requires a nurse license	*	*	(0.0%, 0.7%)	(0.1%, 0.4%)	*	(0.2%, 0.8%)	*	*	*	(0.3%, 0.5%)
	28	44	11	136	31	58	41	47	112	231

	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
Actively	3.6%	3.5%	2.0%	2.8%	2.1%	2.5%	3.1%	2.4%	3.4%	2.2%
employed in a field other than nursing	(2.5%, 5.1%)	(2.6%, 4.7%)	(1.1%, 3.6%)	(2.4%, 3.3%)	(1.5%, 3.0%)	(1.9%, 3.2%)	(2.3%, 4.2%)	(1.8%, 3.2%)	(2.8%, 4.1%)	(1.9%, 2.5%)
	12	28	10	68	10	25	12	37	55	114
Volunteer nurse status	1.2%	1.8%	1.8%	1.1%	0.5%	0.8%	0.9%	1.6%	1.4%	1.0%
only	(0.7%, 2.2%)	(1.2%, 2.7%)	(1.0%, 3.4%)	(0.8%, 1.4%)	(0.2%, 1.0%)	(0.5%, 1.3%)	(0.5%, 1.6%)	(1.1%, 2.3%)	(1.1%, 1.9%)	(0.8%, 1.2%)
	13	23	14	78	26	41	16	36	69	228
Unemployed, seeking work	1.6%	1.6%	2.3%	1.6%	1.6%	1.7%	1.4%	1.7%	2.2%	2.4%
as a nurse	(0.9%, 2.7%)	(1.0%, 2.5%)	(1.3%, 4.0%)	(1.3%, 2.0%)	(1.1%, 2.4%)	(1.2%, 2.3%)	(0.9%, 2.2%)	(1.2%, 2.4%)	(1.8%, 2.8%)	(2.1%, 2.7%)
Unemployed,	27	42	17	174	39	45	37	56	87	270
not seeking	3.5%	3.5%	3.7%	4.0%	2.4%	2.0%	3.2%	2.8%	2.8%	2.9%
work as a nurse	(2.4%, 5.0%)	(2.6%, 4.7%)	(2.4%, 5.7%)	(3.5%, 4.6%)	(1.7%, 3.3%)	(1.5%, 2.7%)	(2.3%, 4.3%)	(2.2%, 3.6%)	(2.3%, 3.4%)	(2.6%, 3.3%)
	145	226	134	634	258	370	181	268	509	1,390
Retired	12.1%	13.0%	19.8%	9.0%	12.4%	11.0%	10.3%	9.4%	10.4%	9.7%
Retired	(10.1%, 14.5%)	(11.2%, 15.0%)	(16.6%, 23.5%)	(8.2%, 9.9%)	(10.8%, 14.2%)	(9.8%, 12.3%)	(8.7%, 12.1%)	(8.2%, 10.8%)	(9.4%, 11.5%)	(9.1%, 10.3%)

Table 41 explored the current employment status for RNs in Michigan by region in 2023. Like in previous years, most RNs were employed full time (60.6 percent to 72.2 percent). However, East Central had the highest percentage and was significantly greater than all other regions (72.2 percent). The percentage of RNs working part time was the highest in 2023 compared to previous years, with the highest percentage being in West/West Central Michigan (14.7 percent). This was significantly greater compared to seven of the 11 regions. There were no significant differences among RNs who were working in non-nursing fields or among those who were unemployed and seeking

work. West/West Central had the highest percentage of RNs who were unemployed and not seeking work (4.4 percent); however, this was only significantly greater than two of the 11 regions.

	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
Actively employed in	639	432	209	1,395	618	838	449	617	1,077	2,858
nursing or in a position that	66.4%	65.8%	64.3%	62.0%	72.2%	67.7%	65.3%	60.6%	64.0%	61.1%
requires a nurse license full-time	(62.6%, 70.0%)	(62.5%, 68.9%)	(59.6%, 68.7%)	(60.2%, 63.8%)	(69.3%, 74.9%)	(65.3%, 70.1%)	(62.0%, 68.5%)	(57.8%, 63.3%)	(61.9%, 66.1%)	(59.8%, 62.4%)
Actively employed in	353	66	28	395	60	100	86	155	222	650
nursing or a position that	9.9%	7.4%	5.9%	14.7%	6.2%	7.2%	10.8%	13.2%	11.9%	11.6%
requires a nurse license part-time	(7.8%, 12.5%)	(5.8%, 9.4%)	(4.0%, 8.6%)	(13.4%, 16.1%)	(4.9%, 7.9%)	(6.0%, 8.6%)	(8.9%, 13.1%)	(11.4%, 15.2%)	(10.6%, 13.4%)	(10.8%, 12.5%)
Actively employed in nursing or in a	72	51	36	125	46	99	61	65	81	402
position that requires a	3.9%	5.1%	6.5%	3.8%	4.0%	6.5%	6.3%	4.6%	3.7%	7.3%
nurse license on a per-diem basis	(2.7%, 5.7%)	(3.8%, 6.8%)	(4.5%, 9.3%)	(3.1%, 4.6%)	(3.0%, 5.4%)	(5.3%, 7.9%)	(4.8%, 8.2%)	(3.6%, 5.9%)	(3.0%, 4.6%)	(6.6%, 8.0%)
On temporary	*	*	*	19	10	14	*	14	17	58
medical leave from a position	*	*	*	0.7%	1.2%	1.1%	*	1.4%	1.0%	1.1%

Table 41. Current Employment Status among RNs by Region, 2023

	Upper Peninsula	Northwest LP	Northeast LP	West/West Central	East Central	East	South Central	Southwest	Southeast	Detroit Metro
Employment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Status	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
that requires a nurse license	*	*	*	(0.4%, 1.1%)	(0.7%, 2.1%)	(0.7%, 1.8%)	*	(0.9%, 2.2%)	(0.6%, 1.5%)	(0.9%, 1.4%)
On temporary non-medical	0	*	*	*	*	*	0	*	*	19
leave from a position that	0.0%	*	*	*	*	*	0.0%	*	*	0.4%
requires a nurse license	(0.0%, 0.6%)	*	*	*	*	*	(0.0%, 0.5%)	*	*	(0.3%, 0.6%)
Actively	25	30	11	101	23	43	21	50	58	159
employed in a field other than	4.0%	3.5%	2.7%	3.4%	2.3%	2.8%	2.4%	4.4%	2.9%	2.6%
nursing	(2.7%, 5.8%)	(2.5%, 5.0%)	(1.5%, 4.7%)	(2.8%, 4.1%)	(1.5%, 3.4%)	(2.1%, 3.8%)	(1.6%, 3.7%)	(3.4%, 5.7%)	(2.2%, 3.7%)	(2.2%, 3.1%)
	*	*	*	19	*	14	*	11	17	39
Volunteer nurse status only	*	*	*	0.3%	*	0.4%	*	0.5%	0.4%	0.4%
Status only	*	*	*	(0.2%, 0.6%)	*	(0.2%, 0.9%)	*	(0.2%, 1.1%)	(0.2%, 0.8%)	(0.3%, 0.6%)
Unemployed,	*	*	*	27	12	20	*	13	24	85
seeking work as		*	*	1.3%	1.5%	1.1%	*	0.8%	1.5%	1.6%
a nurse	*	*	*	(0.9%, 1.8%)	(0.9%, 2.5%)	(0.7%, 1.8%)	*	(0.4%, 1.5%)	(1.1%, 2.1%)	(1.3%, 2.0%)
Unemployed,	16	25	10	112	14	32	28	31	54	160
not seeking	2.3%	2.8%	2.0%	4.4%	1.2%	2.3%	3.5%	2.9%	3.0%	3.3%
work as a nurse	(1.4%, 3.8%)	(1.9%, 4.2%)	(1.0%, 3.8%)	(3.7%, 5.2%)	(0.7%, 2.1%)	(1.6%, 3.2%)	(2.4%, 5.0%)	(2.1%, 4.0%)	(2.3%, 3.8%)	(2.9%, 3.8%)
Democrat	*	10	*	28	14	21	*	17	23	55
Permanent disability leave	*	0.9%	*	0.6%	0.9%	1.3%	*	1.1%	0.9%	0.8%
uisability leave	*	(0.4%, 1.8%)	*	(0.4%, 1.0%)	(0.5%, 1.7%)	(0.8%, 2.0%)	*	(0.6%, 1.9%)	(0.6%, 1.4%)	(0.6%, 1.1%)
	120	200	106	518	198	270	161	247	421	1,103
Retired	9.4%	12.6%	13.1%	8.6%	9.9%	9.2%	9.7%	10.4%	10.4%	9.8%
	(7.4%, 11.9%)	(10.5%, 15.0%)	(10.2%, 16.6%)	(7.6%, 9.7%)	(8.2%, 11.9%)	(7.8%, 10.8%)	(7.9%, 11.9%)	(8.8%, 12.2%)	(9.1%, 11.8%)	(9.0%, 10.6%)

Table 42 explored plans to work five years or less by prosperity region among RNs and LPNs in 2019, 2021 and 2023. Between 2019 and 2023, there has been a steady increase among RNs living in Michigan who indicate that they plan on leaving the nursing workforce within five years (19.0 percent to 32.0 percent), while LPNs had a significantly large increase between 2021 and 2023 (21.3 percent and 75.2 percent, respectively) although the regions for which this is applicable are unknown. For RNs, this increase was significant between 2019 and 2023 (19.0 percent vs. 32.0 percent) and between 2021 and 2023 (20.6 percent vs. 32.0 percent).

When looking at individual years, there are no significant differences between regions among RNs who plan to leave the nursing workforce within the next five years (Table 42). However, when looking across time by region, there has been a steady increase in the percentage of RNs who indicated leaving the nursing workforce across almost all regions, and in 2023, these percentages are highest across the board. This increase, however, was not considered significant for any region.

For LPNs, there were a few significant differences between regions and trends that were visible in the data (Table 42). Across all three years, LPNs consistently had the largest percentage of nurses who indicated leaving the nursing workforce within the next five years in Northwestern LP (39.9 percent to 31.3 percent). In 2019, this was significantly greater compared to Detroit Metro (39.9 percent vs. 18.7 percent). In 2021, this percentage (35.7 percent) was significantly greater compared to South Central Michigan (14.7 percent), Southeast Michigan (18.2 percent) and the Detroit Metro area (14.5 percent). Even though the percentage in Northwestern LP was highest in 2023, the difference was not significantly greater compared to other years.

When looking across time by region for LPNs, there was only an increase in nurses who indicated leaving the workforce within five years since 2019 in West/West Central (24.7 percent to 26.0 percent), Southwest Michigan (16.9 percent to 27.4 percent) and the Detroit Metro area (18.7 percent to 19.3 percent). However, only Southwest Michigan was significantly greater compared to 2019. The rest of the regions had a decrease in the percentage of nurses who indicated leaving the nursing workforce within the next five years although none of these decreases were considered significant.

	2019				202	21	2023			
Region		RNs=20,890			RNs=2	2,966	RNs=12,681			
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI	
Upper Peninsula	250	25.0%	(20.0%, 30.7%)	560	17.6%	(14.7%, 21.0%)	418	25.7%	(21.7%, 30.1%)	
Northwest LP	402	23.3%	(19.4%, 27.7%)	763	24.3%	(21.4%, 27.5%)	495	27.4%	(23.7%, 31.5%)	
Northeast LP	167	17.6%	(12.5%, 24.0%)	295	19.5%	(15.4%, 24.4%)	232	25.5%	(20.3%, 31.5%)	
West/West Central	1,866	17.7%	(16.1%, 19.5%)	3,153	17.3%	(16.0%, 18.7%)	1,717	19.0%	(17.2%, 20.9%)	

Table 42. Plans to Work Five Years or Less by Prosperity Region of Employment: 2019, 2021, & 2023

		201	9		202	21		202	23
Region	RNs=20,890				RNs=2	2,966	RNs=12,681		
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
East Central	522	15.1%	(12.2%, 18.4%)	1,033	17.6%	(15.4%, 20.0%)	709	20.3%	(17.5%, 23.4%)
East	808	17.7%	(15.2%, 20.5%)	1,306	16.8%	(14.9%, 18.9%)	787	19.9%	(17.3%, 22.8%)
South Central	437	19.9%	(16.4%, 23.9%)	852	21.3%	(18.7%, 24.2%)	579	24.5%	(21.2%, 28.2%)
Southwest	678	20.3%	(17.4%, 23.5%)	1,401	19.9%	(17.9%, 22.1%)	812	22.4%	(19.7%, 25.4%)
Southeast	1,082	20.1%	(17.8%, 22.6%)	2,523	19.4%	(17.9%, 21.0%)	1,548	23.3%	(21.3%, 25.5%)
Detroit Metro	3,363	18.6%	(17.4%, 20.0%)	6,352	20.9%	(19.9%, 21.9%)	3,576	25.8%	(24.4%, 27.3%)
Lives in Michigan	10,065	19.0%	(18.3%, 19.8%)	2,079	20.6%	(18.9%, 22.4%)	214	32.0%	(26.1%, 38.5%)
Lives Outside of Michigan	1,250	19.5%	(17.4%, 21.8%)	2,649	20.1%	(18.6%, 21.7%)	1,594	24.4%	(22.4%, 26.6%)
Region	LPNs=2,217			LPNs=	2,498		LPNs=	1,052	
Kegion	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI
Upper Peninsula	72	21.6%	(13.7%, 32.5%)	138	26.8%	(20.1%, 34.7%)	79	22.0%	(14.3%, 32.3%)
Northwest LP	37	39.9%	(25.8%, 55.9%)	67	35.7%	(25.3%, 47.7%)	39	31.3%	(19.0%, 47.0%)
Northeast LP	29	18.8%	(8.6%, 36.3%)	54	20.8%	(12.1%, 33.4%)	25	17.1%	(7.1%, 35.9%)
West/West Central	237	24.7%	(19.6%, 30.5%)	365	22.3%	(18.3%, 26.8%)	164	26.0%	(19.9%, 33.2%)
East Central	66	23.3%	(14.8%, 34.8%)	131	24.4%	(17.8%, 32.4%)	63	15.0%	(8.2%, 25.8%)
East	103	20.0%	(13.4%, 28.8%)	158	27.0%	(20.7%, 34.4%)	81	19.0%	(11.9%, 28.9%)
South Central	27	28.1%	(14.8%, 47.0%)	72	14.7%	(8.3%, 24.7%)	33	18.9%	(9.1%, 35.2%)
Southwest	76	16.9%	(10.1%, 26.8%)	139	18.9%	(13.3%, 26.2%)	68	27.4%	(18.2%, 39.0%)
Southeast	94	22.7%	(15.4%, 32.2%)	226	18.2%	(13.7%, 23.7%)	108	18.9%	(12.6%, 27.3%)
Detroit Metro	318	18.7%	(14.8%, 23.3%)	758	14.5%	(12.2%, 17.2%)	307	19.3%	(15.3%, 24.1%)
Lives in Michigan	1,101	21.6%	(19.3%, 24.1%)	234	21.3%	(16.5%, 27.0%)	19	75.2%	(52.8%, 89.2%)
Lives Outside of Michigan	57	22.0%	(13.2%, 34.4%)	156	16.3%	(11.3%, 22.9%)	66	23.2%	(14.7%, 34.7%)

*Data are suppressed if count is less than 10 or the denominator is less than 20.

Table 43 explored how prepared new nurses felt when entering the nursing workforce among RNs by region in 2019, 2021 and 2023. In 2023, the region that nurses felt they were the least prepared was in in East Central Michigan (30.5 percent), followed closely by East Michigan (31.9 percent). Those in the Northwest LP in 2023 felt the most prepared to enter the nursing workforce (59.6 percent).

Across almost all regions, there had been a decrease in the percentage of RNs who indicate they felt prepared for entering the workforce. The greatest decrease was among RNs living in East Central Michigan (60.7 percent to 30.5 percent), followed by East Michigan (51.4 percent to 31.9 percent), both of which were significant. Northwest LP (51.3 percent to 59.6 percent) and South-Central Michigan (31.9

percent to 38.4 percent) were the only two regions where preparedness increased since 2019 although these were not considered significant.

		2019			2021	l		202	3	
Region		RNs	;		RNs		RNs			
	Ν	%	95% CI	Ν	%	95% CI	Ν	%	95% CI	
Upper Peninsula	28	43.6%	(27.1%, 61.6%)	44	44.6%	(30.9%, 59.1%)	19	35.6%	(18.2%, 57.8%)	
Northwest LP	35	51.3%	(35.5%, 66.9%)	72	55.9%	(44.4%, 66.8%)	29	59.6%	(41.7%, 75.3%)	
Northeast LP	12	50.7%	(25.9%, 75.2%)	23	54.2%	(34.7%, 72.5%)	*	*	*	
West/West Central	195	49.2%	(42.3%, 56.2%)	336	52.5%	(47.2%, 57.8%)	134	43.7%	(35.6%, 52.2%)	
East Central	60	60.7%	(48.1%, 72.1%)	75	45.5%	(34.7%, 56.7%)	44	30.5%	(18.9%, 45.2%)	
East	75	51.4%	(40.3%, 62.4%)	147	50.7%	(42.7%, 58.7%)	64	31.9%	(21.8%, 44.1%)	
South Central	41	31.9%	(19.7%, 47.2%)	70	46.8%	(35.6%, 58.3%)	35	38.4%	(24.2%, 54.9%)	
Southwest	51	53.8%	(40.3%, 66.7%)	120	45.7%	(37.1%, 54.6%)	34	45.7%	(30.3%, 62.0%)	
Southeast	113	45.8%	(36.9%, 54.9%)	206	49.7%	(42.9%, 56.5%)	72	35.0%	(25.0%, 46.5%)	
Detroit Metro	390	52.6%	(47.6%, 57.5%)	682	51.6%	(47.9%, 55.3%)	221	41.2%	(34.9%, 47.8%)	

Table 43. Adequate Preparedness for Entering Nursing Workforce among RNs by Region: 2019, 2021, & 2023

* Data are suppressed if count is less than 10 or sample population was less than 20.

Appendix C: Movement within the Nursing Workforce, 2019-2023

LARA NURSE LICENSURE DATA

To further explore the change in the nursing workforce, the LARA Nurse Licensure data was analyzed from 2019 to 2023 to determine if nurses are staying in their region, are moving within Michigan to another region or if they are leaving Michigan entirely (Tables 44 to 55). The tables are broken down by age, showing all nurses aged 64 and younger, nurses aged 34 years or younger, and nurses aged 35 to 64 years of age. The main takeaways from this data are as follows:

- 1. Overall, most nurses aged 64 years or younger in Michigan between 2019 and 2023 continued to live in the same region as the previous year (90.7 percent to 97.0 percent; Table 44).
 - a. This was also true among nurses aged 34 years or younger and nurses aged 35 years and older; however, fewer younger nurses continued to work in the same region compared to older nurses (87.9 percent to 97.0 percent and 91.7 percent to 98.2 percent, respectively).
- 2. Among nurses aged 64 years and younger living in Michigan, the largest percentage of nurses who moved to a different region in Michigan, as well as moved outside of Michigan, occurred between 2021 and 2022 (3.8 percent and 3.1 percent, respectively; Table 44).
 - a. This was also true among both younger nurses and older nurses; however, younger nurses were more likely to have moved to a different region and moved outside of Michigan compared to older nurses between 2021 and 2022 (5.8 percent vs. 3.1 percent and 4.1 percent vs 2.7 percent, respectively).
- 3. Among nurses aged 64 years and younger, there had been a steady decrease in the percentage of nurses living outside of Michigan (91.5 percent to 81.8 percent; Table 45). The largest percentage of nurses aged 64 years and younger who moved into Michigan occurred between 2022 and 2023 (9.6 percent).
 - a. Both younger and older nurses had their largest increase of movement into Michigan between 2022 and 2023; however, younger nurses were more likely to move into Michigan across all years, with the highest percentage occurring between 2022 and 2023 (14.0 percent vs. 8.1 percent).

In addition to looking at Michigan as a whole, the data was explored looking at each Michigan region individually. When breaking down this data by specific Michigan region, the following trends appear:

- 1. Among nurses aged 64 years or younger in Michigan between 2019 and 2023, the years that consistently had the largest percentage of nurses moving to other regions and moving outside of Michigan was between 2021 and 2022 (Tables 46 to 55).
- 2. Across all regions, younger nurses were more likely to leave to a different region and move outside of Michigan compared to older nurses (Tables 46 to 55).
 - a. The region that had the largest percentage of nurses aged 64 years and younger leaving to other regions was Eastern Michigan (7.6 percent; Table 51), followed by South Central Michigan (7.0 percent; Table 52).
 - i. This trend stayed true for older nurses (6.5 percent and 5.6 percent, respectively); however, younger nurses were most likely to leave the

Northeastern Lower Peninsula compared to every other region (11.5 percent; Table 48), followed closely by East (11.0 percent; Table 51) and South-Central Michigan (11.1 percent; Table 52).

- b. The percentage of nurses aged 64 years or younger leaving Michigan did not fluctuate much between regions between 2021 and 2022 (2.6 percent to 3.6 percent; Tables 46 to 55); however, younger nurses were consistently more likely to leave the state compared to older nurses, except for those living in East Central Michigan (older = 2.3 percent; younger = 3.3 percent; Table 50).
 - i. The region that had the largest percentage of nurses aged 64 years and younger leaving Michigan occurred in the UP (3.6 percent; Table 46), followed closely by Southwest Michigan (3.5 percent; Table 53).
 - These trends did not translate when comparing younger and older nurses. Younger nurses had the largest movement out of Michigan occurring in Southwest Michigan (5.7 percent; Table 53), followed by the UP (4.9 percent; Table 46). Older nurses had their largest movement out of Michigan occurring in both the UP (3.1 percent; Table 46) and Northeastern Lower Peninsula (3.1 percent; Table 48).

		Age	d 64 years o	or younger							
Living in ML in Deseline		Baseline Year									
Living in MI in Baseline Year	20	19	20	2020		21	2022				
Teur	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	116,531	-	119,903	-	117,955	-	115,448	-			
In Following Year:	20	20	20	21	20	22	202	23			
Same Region	114,088	97.9	115,191	96.1	106,947	90.7	112,042	97.0			
Different Region	1,036	0.9	1,494	1.2	4,520	3.8	1,365	1.2			
Outside Michigan	554	0.5	632	0.5	3,628	3.1	559	0.5			
Not Found	853	0.7	2,586	2.2	2,860	2.4	1,482	1.3			
	-	Age	d 34 years o	or younger							
		Baseline Year									
Living in MI in Baseline	20	2019		2020		2021		22			
Year	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	30,842	-	33,188	-	31,359	-	30,921	-			
In Following Year:	20	20	20	21	20	22	202	23			
Same Region	29,917	97.0	31,810	95.8	27,563	87.9	29,731	96.2			
Different Region	466	1.5	735	2.2	1,832	5.8	629	2.0			
Outside Michigan	180	0.6	198	0.6	1,283	4.1	206	0.7			
Not Found	279	0.9	445	1.3	681	2.2	355	1.1			
		A	Aged 35 to 6	4 years							
				Base	line Year						
Living in MI in Baseline Year	20	019	20	20	20	21	202	22			
	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	85,689	-	86,715	-	86,596	-	84,527	-			
In Following Year:	20	20	20	21	2022		2023				
Same Region	84,171	98.2	83,381	96.2	79,384	91.7	82,311	97.4			
Different Region	570	0.7	759	0.9	2,688	3.1	736	0.9			

Table 44. Change in Nurse Location Over Time Among RNs Living in Michigan by Age Group, 2019 to 2023

Aged 35 to 64 years										
Living in ML in Deceline		Baseline Year								
Living in MI in Baseline Year	2019		2020		2021		2022			
	#	%	#	%	#	%	#	%		
Outside Michigan	374	0.4	434	0.5	2,345	2.7	353	0.4		
Not Found	574	574 0.7 2,141 2.5 2,179 2.5 1,127 1.3								

Table 45. Change in Nurse Location Over Time Among RNs Living Outside Michigan by Age Group, 2019-2023

		Age	d 64 years o	or younger							
		Baseline Year									
Living Outside MI in Baseline Year	20	2019		2020		2021		2022			
	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	17,904	-	21,119	-	22,727	-	30,643	-			
In Following Year:	20	2020 2021 2022 2023									
Outside Michigan	16,381	91.5	18,727	88.7	19,192	84.4	25,081	81.8			
Moved to Michigan	424	2.4	434	2.1	963	4.2	2,927	9.6			
Unknown	1,099	6.1	1,958	9.3	2,572	11.3	2,635	8.6			
		Age	d 34 years o	or younger	-	-	-	-			
Lining Outside MLin				Base	line Year						
Living Outside MI in Baseline Year	20	19	20	20	2021		2022				
Duschne rear	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	3,678	-	4,483	-	4,709	-	7,453	-			
In Following Year:	20	20	20	021	20	22	20	23			
Outside Michigan	3,183	86.5	3,892	86.8	3,819	81.1	5,817	78.0			
Moved to Michigan	184	5.0	181	4.0	419	8.9	1,044	14.0			
Unknown	311	8.5	410	9.1	471	10.0	592	7.9			

Aged 35 to 64 years										
Living Outside MLin	Baseline Year									
Living Outside MI in Baseline Year	20	019	20	20	20	21	20	22		
Daschile Tear	#	%	#	%	#	%	#	%		
Nurses in Baseline Year	14,226	-	16,636	-	18,018	-	23,190	-		
In Following Year:	20	20	20	21	20	22	20	23		
Outside Michigan	13,198	92.8	14,835	89.2	15,373	85.3	19,264	83.1		
Moved to Michigan	240	1.7	253	1.5	544	3.0	1,883	8.1		
Unknown	788									

Table 46. Change in Nurse Location in the Upper Peninsula (UP) Over Time Among RNs by Age Group, 2019 to 2023

		Age	d 64 years	or younger							
Living in the UD in Deceline	Baseline Year										
Living in the UP in Baseline Year	2019		20	020	20	021	20	22			
Tour	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	3,743	-	3,749	-	3,685	-	3,559	-			
In Following Year:	20	2020 2021 2022 2023									
Same Region	3,570	95.4	3,579	95.5	3,326	90.3	3,430	96.4			
Different Region	27	0.7	24	0.6	74	2.0	30	0.8			
Outside Michigan	85	2.3	25	0.7	131	3.6	22	0.6			
Not Found	61	1.6	121	3.2	154	4.2	77	2.2			
		Age	d 34 years	or younger							
Lining in the UD in Deceling				Basel	ine Year						
Living in the UP in Baseline Year	20	19	20	020	20	021	20	22			
Tour	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	955	-	1,008	-	948	-	922	-			
In Following Year:	2020		2021		2022		2023				
Same Region	908	95.1	956	94.8	834	88.0	886	96.1			

		Age	d 34 years	or younger							
Living in the UD in Peceline	Baseline Year										
Living in the UP in Baseline Year	2019		20	020	20	021	20	22			
Teur	#	%	#	%	#	%	#	%			
Different Region	10	1.0	17	1.7	31	3.3	11	1.2			
Outside Michigan	22	2.3	*	*	46	4.9	*	*			
Not Found 15 1.6 29 2.9 37 3.9 17 1.8											
		I	- Aged 35 to (64 years	-	-					
Lining in UD in Deseling		Baseline Year									
Living in UP in Baseline Year	20	19	20	2020		2021		2022			
Teur	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	2,788	-	2,741	-	2,737	-	2,637	-			
In Following Year:	20	20	20	021	20	022	20	23			
Same Region	2,662	95.5	2,623	95.7	2,492	91.0	2,544	96.5			
Different Region	17	0.6	*	*	43	1.6	19	0.7			
Outside Michigan	63	2.3	19	0.7	85	3.1	14	0.5			
Not Found	46	1.6	92	3.4	117	4.3	60	2.3			

Table 47. Change in Nurse Location in the Northwestern Lower Peninsula (Northwest LP) Over Time Among RNs by Age Group, 2019 to 2023

Aged 64 years or younger										
Living in Northwest LP in Baseline Year	Baseline Year									
	2019		2020		2021		2022			
Dubonne reur	#	%	#	%	#	%	#	%		
Nurses in Baseline Year	4,102	-	4,212	-	4,088	-	4,019	-		
In Following Year:	2020		2021		2022		20	23		
Same Region	4,012	4,012 97.8 4,019 95.4 3,690 90.3 3,901 97.1								

		Age	d 64 years	or younger							
Lining in Monthemat I D in		Baseline Year									
Living in Northwest LP in Baseline Year	20	19	2020		2021		2022				
	#	%	#	%	#	%	#	%			
Different Region	46	1.1	68	1.6	156	3.8	52	1.3			
Outside Michigan	23	0.6	23	0.5	115	2.8	14	0.3			
Not Found	21	0.5	102	2.4	127	3.1	52	1.3			
		Age	d 34 years	or younger	-	-					
T'- ' ' No-others of TD '				Basel	ine Year						
Living in Northwest LP in Baseline Year	20	19	20)20	20)21	20	22			
Dasenne rear	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	909	-	980	-	880	-	883	-			
In Following Year:	20	20	20	021	20)22	20	23			
Same Region	883	97.1	929	94.8	755	85.8	846	95.8			
Different Region	15	1.7	32	3.3	66	7.5	23	2.6			
Outside Michigan	*	*	*	*	33	3.8	*	*			
Not Found	*	*	14	1.4	26	3.0	*	*			
			- Aged 35 to 6	54 years	-	-					
T'- ' '- No-there at TD '				Basel	ine Year						
Living in Northwest LP in Baseline Year	20	19	20)20	20)21	20	22			
buschile real	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	3,193	-	3,232	-	3,208	-	3,136	-			
In Following Year:	20	20	20)21	20)22	20	23			
Same Region	3,129	98.0	3,090	95.6	2,935	91.5	3,055	97.4			
Different Region	31	1.0	36	1.1	90	2.8	29	0.9			
Outside Michigan	16	0.5	18	0.6	82	2.6	*	*			
Not Found	17	0.5	88	2.7	101	3.1	44	1.4			

Table 48. Change in Nurse Location in the Northeastern Lower Peninsula (Northeast LP) Over Time Among RNs by Age Group, 2019 to 2023

		Age	d 64 years	or younger						
	Baseline Year									
Living in MI in Baseline Year	20	019	2020		2021		2022			
Tear	#	%	#	%	#	%	#	%		
Nurses in Baseline Year	2,070	-	2,143	-	2,107	-	2,118	-		
In Following Year:	20	20	20	21	20	22	20	23		
Same Region	2,027	97.9	2,032	94.8	1,839	87.3	2,027	95.7		
Different Region	28	1.4	46	2.1	136	6.5	56	2.6		
Outside Michigan	*	*	14	0.7	70	3.3	*	*		
Not Found	*	*	51	2.4	62	2.9	27	1.3		
	-	Age	d 34 years	or younger	-	-				
X · · · X · · · · · · · · ·	Baseline Year									
Living in Northwest LP in Baseline Year	2019		2020		2021		20	22		
	#	%	#	%	#	%	#	%		
Nurses in Baseline Year	452	-	488	-	479	-	475	-		
In Following Year:	20	20	20	21	20	22	2023			
Same Region	435	96.2	461	94.5	398	83.1	448	94.3		
Different Region	11	2.4	20	4.1	55	11.5	21	4.4		
Outside Michigan	*	*	*	*	19	4.0	*	*		
Not Found	*	*	*	*	*	*	*	*		
		I	Aged 35 to 6	64 years						
				Base	line Year					
Living in Northwest LP in Baseline Year	20)19	20	20	20	21	20	22		
Daschlie Tear	#	%	#	%	#	%	#	%		
Nurses in Baseline Year	1,618	-	1,655	-	1,628	-	1,643	-		
In Following Year:	20	20	20	21	20	22	20	23		
Same Region	1,592	98.4	1,571	94.9	1,441	88.5	1,579	96.1		

Aged 35 to 64 years										
Living in Nonthwest I D in	Baseline Year									
Living in Northwest LP in Baseline Year	2019		2020		2021		2022			
Dubonne reur	#	%	#	%	#	%	#	%		
Different Region	17	1.1	26	1.6	81	5.0	35	2.1		
Outside Michigan	*	* * 13 0.8 51 3.1 * *								
Not Found	*	* * 45 2.7 55 3.4 24 1.5								

Table 49. Change in Nurse Location in West/West Central Michigan Over Time Among RNs by Age Group, 2019 to 2023

		Age	d 64 years	or younger				
Living in West MI in				Base	line Year			
Living in West MI in Baseline Year	20	19	2020		2021		2022	
Duschile Teur	#	%	#	%	#	%	#	%
Nurses in Baseline Year	17,712	-	18,261	-	17,997	-	17,738	-
In Following Year:	20	20	20	021	20	22	20	23
Same Region	17,429	98.4	17,671	96.8	16,634	92.4	17,278	97.4
Different Region	114	0.6	155	0.8	419	2.3	152	0.9
Outside Michigan	67	0.4	89	0.5	567	3.2	68	0.4
Not Found	102	0.6	346	1.9	377	2.1	240	1.4
		Age	d 34 years	or younger				
T XAT NAT				Base	line Year			
Living in West MI in Baseline Year	20	19	20	20	20	21	20	22
Dusenne rear	#	%	#	%	#	%	#	%
Nurses in Baseline Year	5,330	-	5,622	-	5,289	-	5,220	-
In Following Year:	20	20	20	021	20	22	20	23
Same Region	5,185	97.3	5,442	96.8	4,754	89.9	5,042	96.6
Different Region	69	1.3	72	1.3	212	4.0	82	1.6
Outside Michigan	33	0.6	39	0.7	222	4.2	32	0.6

Not Found	43	0.8	69	1.2	101	1.9	64	1.2		
Aged 35 to 64 years										
Baseline Year										
Living in West MI in Baseline Year	20	19	20	20	20	21	20	22		
Duschine Teur	#	%	#	%	#	%	#	%		
Nurses in Baseline Year	12,382	-	12,639	-	12,708	-	12,518	-		
In Following Year:	20	20	20	21	20	22	20	23		
Same Region	12,244	98.9	12,229	96.8	11,880	93.5	12,236	97.7		
Different Region	45	0.4	83	0.7	207	1.6	70	0.6		
Outside Michigan	34	0.3	50	0.4	345	2.7	36	0.3		
Not Found	59	0.5	277	2.2	276	2.2	176	1.4		

Table 50. Change in Nurse Location in East Central Michigan Over Time Among RNs by Age Group, 2019 to 2023

		Age	d 64 years	or younger					
Living in East Central MI in		Baseline Year							
Baseline Year	2019		20	20	20	21	20	22	
buschnic reur	#	%	#	%	#	%	#	%	
Nurses in Baseline Year	6,855	-	7,063	-	7,010	-	6,896	-	
In Following Year:	20	20	20	21	20	22	20	23	
Same Region	6,728	98.1	6,798	96.2	6,420	91.6	6,723	97.5	
Different Region	71	1.0	89	1.3	273	3.9	86	1.2	
Outside Michigan	21	0.3	35	0.5	180	2.6	21	0.3	
Not Found	35	0.5	141	2.0	137	2.0	66	1.0	
		Age	d 34 years	or younger					
Living in Fast Control MI in				Base	line Year				
Living in East Central MI in Baseline Year	20	19	20	20	20	21	2022		
Duschine i cui	#	%	#	%	#	%	#	%	
Nurses in Baseline Year	1,743	-	1,908	-	1,768	-	1,707	-	

		Age	d 34 years	or younger				
Living in East Central MI in				Base	line Year			
Baseline Year	20	19	20	20	2021		2022	
Duschine Teur	#	%	#	%	#	%	#	%
In Following Year:	20	20	20	021	20	22	20	23
Same Region	1,743	97.1	1,832	96.0	1,566	88.6	1,641	96.1
Different Region	34	1.9	45	2.4	127	7.2	47	2.8
Outside Michigan	*	*	12	0.6	58	3.3	*	*
Not Found	*	*	19	1.0	17	1.0	12	0.7
		Ĩ	Aged 35 to (64 years	-		-	
	-			Base	line Year			
Living in East Central MI in Baseline Year	20	19	2020		2021		2022	
Duschne Teur	#	%	#	%	#	%	#	%
Nurses in Baseline Year	5,060	-	5,155	-	5,242	-	5,189	-
In Following Year:	20	20	20	021	20	22	20	23
Same Region	4,985	98.5	4,966	96.3	4,854	92.6	5,082	97.9
Different Region	37	0.7	44	0.9	146	2.8	39	0.8
Outside Michigan	14	0.3	23	0.4	122	2.3	14	0.3
Not Found	24	0.5	122	2.4	120	2.3	54	1.0

Table 51. Change in Nurse Location in Eastern Michigan Over Time Among RNs by Age Group, 2019 to 2023

Aged 64 years or younger								
Living in Fact MLin	Baseline Year							
Living in East MI in Baseline Year	2019		2020		2021		2022	
	#	%	#	%	#	%	#	%
Nurses in Baseline Year	10,635	-	10,945	-	10,774	-	10,318	-
In Following Year:	2020 2021 2022 2023							

		Age	ed 64 years	or younger				
Living in Fost ML in				Base	line Year			
Living in East MI in Baseline Year	20	19	2020		2021		2022	
	#	%	#	%	#	%	#	%
Same Region	10,396	97.8	10,469	95.7	9,451	87.7	10,017	97.1
Different Region	137	1.3	212	1.9	820	7.6	146	1.4
Outside Michigan	29	0.3	37	0.3	285	2.6	47	0.5
Not Found	73	0.7	227	2.1	218	2.0	108	1.0
	-	Age	d 34 years	- or younger	-	-		
				Base	line Year			
Living in East MI in Baseline Year	20	019	20	20	20	21	20	22
Baseline Year	#	%	#	%	#	%	#	%
Nurses in Baseline Year	2,569	-	2,797	-	2,656	-	2,646	-
In Following Year:	20	20	20)21	20	22	20	23
Same Region	2,473	96.3	2,659	95.1	2,248	84.6	2,534	95.8
Different Region	63	2.5	106	3.8	292	11.0	70	2.6
Outside Michigan	10	0.4	14	0.5	68	2.6	23	0.9
Not Found	23	0.9	18	0.6	48	1.8	19	0.7
		-	- Aged 35 to (64 years	-	-	_	
T				Base	line Year			
Living in East MI in Baseline Year	20	19	20	20	20	21	20	22
Dasenne real	#	%	#	%	#	%	#	%
Nurses in Baseline Year	8,066	-	8,148	-	8,118	-	7,672	-
In Following Year:	20	20	20)21	20	22	20	23
Same Region	7,923	98.2	7,810	95.9	7,203	88.7	7,483	97.5
Different Region	74	0.9	106	1.3	528	6.5	76	1.0
Outside Michigan	19	0.2	23	0.3	217	2.7	24	0.3
Not Found	50	0.6	209	2.6	170	2.1	89	1.2

		Age	d 64 years	or younger				
Lining in Courth Courtral MI				Base	line Year			
Living in South Central MI in Baseline Year	20	019	20	2020		21	20	22
in Buschille Feur	#	%	#	%	#	%	#	%
Nurses in Baseline Year	4,818	-	4,998	-	4,895	-	4,709	-
In Following Year:	20	20	20	21	20	22	20	23
Same Region	4,693	97.4	4,758	95.2	4,255	86.9	4,531	96.2
Different Region	68	1.4	109	2.2	343	7.0	98	2.1
Outside Michigan	22	0.5	24	0.5	154	3.1	20	0.4
Not Found	35	0.7	107	2.1	143	2.9	60	1.3
	-	Age	d 34 years	or younger			-	-
				Base	line Year			
Living in South Central MI in Baseline Year	2019		20	2020		2021		22
In Dasenne Tear	#	%	#	%	#	%	#	%
Nurses in Baseline Year	1,237	-	1,343	-	1,225	-	1,167	-
In Following Year:	20	20	20	21	20	22	20	23
Same Region	1,182	95.6	1,256	93.5	1,007	82.2	1,101	94.3
Different Region	35	2.8	59	4.4	136	11.1	49	4.2
Outside Michigan	*	*	*	*	52	4.2	*	*
Not Found	14	1.1	20	1.5	30	2.4	11	0.9
		I	Aged 35 to (64 years				
				Base	line Year			
Living in South Central MI in Baseline Year	20	019	20	20	20	21	20	22
	#	%	#	%	#	%	#	%
Nurses in Baseline Year	3,581	-	3,655	-	3,670	-	3,542	-
In Following Year:	20	20	20	21	20	22	20	23
Same Region	3,511	98.0	3,502	95.8	3,248	88.5	3,430	96.8
Different Region	33	0.9	50	1.4	207	5.6	49	1.4

Table 52. Change in Nurse Location in South Central Michigan Over Time Among RNs by Age Group, 2019 to 2023

Aged 35 to 64 years										
Baseline Year										
Living in South Central MI in Baseline Year	20	19	20	20	2021		2022			
	#	%	#	%	#	%	#	%		
Outside Michigan	16	16 0.4 16 0.4 102 2.8 14 0.4								
Not Found	21	0.6	87	2.4	113	3.1	49	1.4		

Table 53. Change in Nurse Location in Southwest (SW) Michigan Over Time Among RNs by Age Group, 2019 to 2023

		Age	d 64 years	or younger				
Living in SW MI in Pagalina	-			Base	line Year			
Living in SW MI in Baseline Year	2019		20	2020		2021		22
	#	%	#	%	#	%	#	%
Nurses in Baseline Year	8,413	-	8,468	-	8,292	-	7,980	-
In Following Year:	20	20	20)21	20	22	20	23
Same Region	8,096	96.2	8,081	95.4	7,447	89.8	7,708	96.6
Different Region	90	1.1	91	1.1	300	3.6	84	1.1
Outside Michigan	56	0.7	59	0.7	293	3.5	54	0.7
Not Found	171	2.0	237	2.8	252	3.0	134	1.7
		Age	d 34 years	or younger				
				Base	line Year			
Living in SW MI in Baseline Year	20	19	20	20	2021		2022	
i cui	#	%	#	%	#	%	#	%
Nurses in Baseline Year	1,906	-	1,994	-	1,872	-	1,772	-
In Following Year:	20	20	20)21	20	22	20	23
Same Region	1,800	94.4	1,899	95.2	1,590	84.9	1,678	94.7
Different Region	37	1.9	43	2.2	128	6.8	43	2.4
Outside Michigan	18	0.9	16	0.8	106	5.7	22	1.2

		Age	d 34 years	or younger					
			Baseline Year						
Living in SW MI in Baseline Year	20	19	2020		2021		2022		
Tour	#	%	#	%	#	%	#	%	
Not Found	51	2.7	36	1.8	48	2.6	29	1.6	
			Aged 35 to 6	64 years	-				
	Baseline Year								
Living in SW MI in Baseline Year	2019		2020		2021		2022		
Teur	#	%	#	%	#	%	#	%	
Nurses in Baseline Year	6,507	-	6,474	-	6,420	-	6,208	-	
In Following Year:	20	20	20	021	20	22	20	23	
Same Region	6,296	96.8	6,182	95.5	5,857	91.2	6,030	97.1	
Different Region	53	0.8	48	0.7	172	2.7	41	0.7	
Outside Michigan	38	0.6	43	0.7	187	2.9	32	0.5	
Not Found	120	1.8	201	3.1	204	3.2	105	1.7	

Table 54. Change in Nurse Location in Southeast (SE) Michigan Over Time Among RNs by Age Group, 2019 to 2023

Aged 64 years or younger								
Living in SE ML in Deceline	Baseline Year							
Living in SE MI in Baseline Year	2019 2020 2021							22
Tour	#	%	#	%	#	%	#	%
Nurses in Baseline Year	13,498	-	13,921	-	13,717	-	14,234	-
In Following Year:	20	20	20	21	20	22	20	23
Same Region	13,155	97.5	13,289	95.5	12,362	90.1	13,733	96.5
Different Region	168	1.2	225	1.6	502	3.7	212	1.5
Outside Michigan	72	0.5	96	0.7	439	3.2	75	0.5
Not Found	103	0.8	311	2.2	414	3.0	214	1.5

		Age	d 34 years	or younger				
Living in SE MI in Possiine				Base	line Year			
Living in SE MI in Baseline Year	20	19	2020		2021		2022	
	#	%	#	%	#	%	#	%
Nurses in Baseline Year	3,426	-	3,715	-	3,540	-	3,689	-
In Following Year:	20	20	20	21	20	22	20	23
Same Region	3,288	96.0	3,499	94.2	3,029	85.6	3,491	94.6
Different Region	74	2.2	115	3.1	231	6.5	110	3.0
Outside Michigan	24	0.7	32	0.9	166	4.7	29	0.8
Not Found	40	1.2	69	1.9	114	3.2	59	1.6
	-	-	- Aged 35 to 6	64 years		-	-	-
Lising in QE MLin Deseling				Base	line Year			
Living in SE MI in Baseline Year	20	19	20	20	20	21	20	22
Tear	#	%	#	%	#	%	#	%
Nurses in Baseline Year	10,072	-	10,206	-	10,177	-	10,545	-
In Following Year:	20	20	20	021	20	22	20	23
Same Region	9,867	98.0	9,790	95.9	9,333	91.7	10,242	97.1
Different Region	94	0.9	110	1.1	271	2.7	102	1.0
Outside Michigan	48	0.5	64	0.6	273	2.7	46	0.4
Not Found	63	0.6	242	2.4	300	2.9	155	1.5

Table 55. Change in Nurse Location in the Detroit Metro Area (DMA) in Michigan Over Time Among RNs by Age Group, 2019 to 2023

Aged 64 years or younger											
Living in DMA MI in Baseline Year	Baseline Year										
	2019		2020		2021		2022				
	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	44,685	-	46,143	-	45,390	-	43,877	-			
In Following Year:	2020		2021		2022		2023				

		Age	ed 64 years	or younger	,						
Living in DMA MI in Baseline Year		Baseline Year									
	20	2019		2020		2021		2022			
	#	%	#	%	#	%	#	%			
Same Region	43,982	98.4	44,495	96.4	41,523	91.5	42,694	97.3			
Different Region	287	0.6	475	1.0	1,497	3.3	449	1.0			
Outside Michigan	171	0.4	230	0.5	1,394	3.1	230	0.5			
Not Found	245	0.5	943	2.0	976	2.2	504	1.1			
	_	Age	d 34 years	or younger	-		-	-			
	Baseline Year										
Living in DMA MI in Baseline Year	20	2019		2020		2021		2022			
	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	12,263	-	13,333	-	12,702	-	12,440	-			
In Following Year:	20	2020		2021		2022		2023			
Same Region	12,020	98.0	12,877	96.6	11,382	89.6	12,064	97.0			
Different Region	118	1.0	226	1.7	554	4.4	173	1.4			
Outside Michigan	51	0.4	65	0.5	513	4.0	70	0.6			
Not Found	74	0.6	165	1.2	253	2.0	133	1.1			
	_		Aged 35 to 6	64 years			-				
Living in DMA MI in Baseline Year	Baseline Year										
	20	2019		2020		2021		2022			
	#	%	#	%	#	%	#	%			
Nurses in Baseline Year	32,422	-	32,810	-	32,688	-	31,437	-			
In Following Year:	20	2020		2021		2022		2023			
Same Region	31,962	98.6	31,618	96.4	30,141	92.2	30,630	97.4			
Different Region	169	0.5	249	0.8	943	2.9	276	0.9			
Outside Michigan	120	0.4	165	0.5	881	2.7	160	0.5			
Not Found	171	0.5	778	2.4	723	2.2	371	1.2			

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